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Farm and Ranch REVIEW

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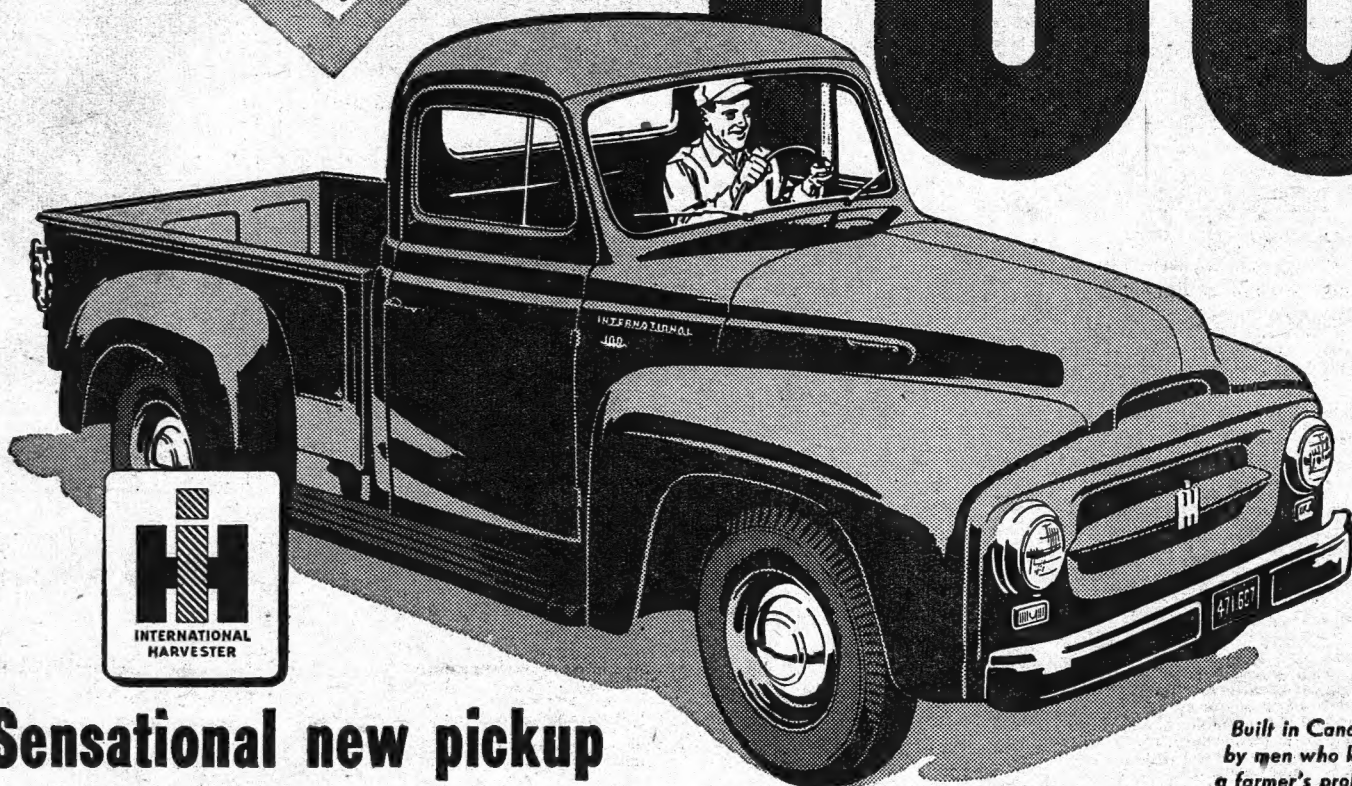
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The Farm and Ranch Review

706 - 2nd Avenue, West, Calgary, Alberta

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James H. Gray, Editor

P. Peterson, Advertising Manager

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Forage crops need careful seeding

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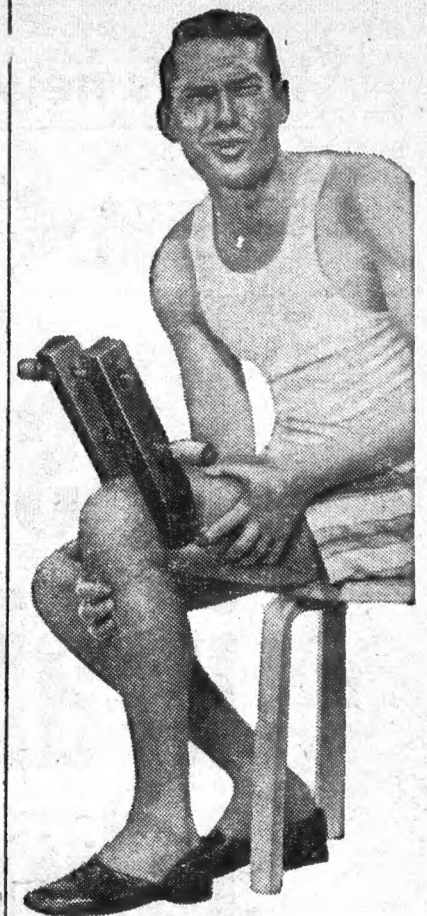
When seeding forage crops, more care is required than when seeding grain crops. Cereal crops have large seeds and good stands generally result, even when they are sown at depths up to four inches. On the other hand, grass and legume seeds are small and will not emerge from great depths. Shallow seeding is a must for these crops.

Experiments at Swift Current have shown that the optimum seeding depth for most grasses is 1/2 inch, while depths beyond 1 1/2 inches resulted in slow emergence and poorer stands. The general recommendation is to seed no deeper than 1 inch.

Successful shallow seeding depends on such factors as seed bed preparation, drill run pressure, packing, and surface soil

moisture. It is no accident that forage seed which is seeded in the late fall directly into the stubble land usually results in good catches and good yields. On stubble land the soil is firm and a constant shallow seeding depth is easily attained. In the following spring, the seed has a chance for early germination with ample moisture present. Thus, weed competition is not too severe while the grass is getting established.

Spring seeding of grasses and legumes is a more ticklish job. The land must first be worked, which creates a loose seed bed and makes shallow seeding difficult. It is usually necessary to harrow or pack the land before seeding to make shallow seeding possible. The drill is the best seeder to use in planting grasses and legumes. Spring pressure can be removed from the runs and a uniform depth of seeding attained.



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The Farm and Ranch Editorial Page...

THE EDUCATIONAL CRISIS — 4

The Reds' surest weapon is a soft headed democracy

THE struggle for the survival between the Communist idea and the democratic idea is not confined to the battle fields. Indeed, the real struggle only starts when the shooting stops for the struggle is not one for territory. It is a struggle for the minds of all the people of the world. The argument between East and West is one of ideas and ideals.

To believe that our ideals are bound to triumph because they are right is to succumb to the most dangerous of delusions. Mussolini, Hitler and Stalin proved that the forces of evil in the hands of unscrupulous tyrants are almost impossible to resist.

Where the first two made their fatal error was in seeking to impose their tyranny on the rest of the world, by the use of armed aggression. But pursuit of the same ends by other means enabled the Russian Communists to extend their influence over half the world. It is 35 years since the Communist idea took root and started to grow in Russia. Who can say that it is any weaker today than it was a year ago or a decade ago?

Why has Communism flourished? Why have the Communists been able to entice into their organization some of our most brilliant minds, men born, raised and nurtured by the democratic tradition? We think the answer is to be found in the fact that Communism is a case-hardened state of mind, one that has been tempered by the imposition of the most severe mental discipline. The average Communist can argue rings around the average Democrat because the Communist has done his homework and the Democrat has not.

And this brings us to our educational system. If what was wrong with our system was only a weakness in teaching methods, we would not be too concerned. Nor would we worry unduly if we had only to decide whether the teaching ideas of John Dewey were better or inferior in comparison with those of Robert Hutchins. But in a very real sense, our schools are our last line of defence in our struggle against Communism and the tyranny it imposes on the minds of mankind. Because that is true, it follows that one of the main concerns of our schools should be to develop the minds of our children so that they are capable of resisting the Communist idea.

If we were the Communist party leaders, we would be certain that the victory would ultimately be ours if the democracies could be tricked into adopting any sort of a "soft" educational system. The Communists know how to get ideas into heads so that they will never shake loose. It is done by the most intensive drill and study. It was done, and presumable is still done, in the Communist schools in Canada by what can be called the panel discussion system.

Three or four students and a leader go into a room and collectively study a subject from morning till night. They do it over and over and over until the pupils are letter perfect. Then the same thing is done again and again and again for all other subjects.

The Communists could not care less than they do about personal development, about child psychology, and about all the other nonsense that clutters the thinking of our educationalists. They don't care about attitudes, or about the integration of students in society. They care only about what is in their minds. They bend all their efforts

Correction

OUR February educational editorial contained an error of fact which we wish to correct. We stated that "to hold a school today a teacher must have taken a three or four-year special university course and hold a bachelor of education degree."

This is incorrect as far as Alberta and Saskatchewan are concerned. One of the leading lights of the modernist movement, in gleefully seizing upon our error, points out that the one-year course for teachers is the most popular in Alberta.

We don't like making silly mistakes. This one, however, has this value: it serves to completely explode the argument of Alberta teachers that teaching is a "profession" and is entitled to be treated as such and paid as such. Obviously the normal training course for teachers is less extensive than the standard apprenticeships which mechanics and tradesmen must take. It takes a four-year apprenticeship to make a plumber or electrician, but only a year to train a teacher.

to point those minds in the direction they want them to take.

We do not argue that everything is good with the Communist system of education, or that everything is bad with the Canadian; or that we should pattern ours on theirs because theirs seems to serve their ends. But we do say unless we turn out young Canadians who are every bit as tough minded and as capable of disciplined reasoning as the Communists, that we cannot hope to resist the Communist idea.

Our schools today have gone overboard in their emphasis on co-operative action. The discipline that once was the hallmark of our schools has been diluted. Competition in the classroom has been replaced by co-operative projects. Pupils who find the going difficult are not required to work harder than the others; the progress of the rest is slowed to their speed. Instead of being drilled in fundamental subjects, the pupils today are encouraged to become interested in them by devious and indirect methods.

The affect of all this has been to gradu-

ate young people who are ill-equipped mentally to take their places in our society. Ours is not a co-operative commonwealth, not by a long shot. All their young reflexes have been conditioned to a completely different world; where you did what you wanted to do, how you wanted to and when you wanted to. They emerge into competitive economy where employers demand competence and won't suffer fools gladly. It is a strange and often frightening world.

But if the graduates of our schools are not prepared for day-to-day life in their own country, how much less are they able to cope with the world without? Communism is a multi-pronged weapon — cultural, economic and social as well as military. It must be met and defeated on all these fronts. That will require that the people of all our democracies be able to think very clearly for themselves. That, surely, is the basic aim of education — to teach people to think for themselves.

Thinking is hard work. Most of us will do anything we can to avoid it. Learning to think is not something that can be done easily, like eating cream puffs. It takes discipline. It requires training which consists of building up the pressure on the developing mind. Only by doing that will the young mind develop its maximum capacity. And make no mistake about this: If the world is to be saved for democracy, it will have to be done by the qualities of mind developed in our schools.

The aim of our schools, then, must be to turn out a steady stream of young Canadians who are mentally alert, mentally stimulated, and mentally hardened to a point where they can prove themselves a match for the Communists. We don't think that that is possible under a system where there is everything for the personality, everything for the young ego but in Dr. Neatby's phrase — "So Little for the Mind".

★

The Bull Sale went sour

THE trouble that many of us foresaw for the Calgary Bull Sale came home to roost this year. The Hereford breeders, who seem to have been under the impression that there was an unlimited market for all the bulls anybody cared to raise, took a very bad beating. They cannot argue that it was not deserved.

It was because of the insistence of the Hereford breeders that the sale this year was split into two sections on succeeding weeks. As if that was not enough, they overloaded their own sale by at least 150 bulls. So the average price for their breed was down \$114 a head.

The fact that stood out at the sale this year was — the sale has gone about as far as it can go in bigness. From now on it must change direction and concentrate on becoming the sale where nothing but the best is offered. In doing that, it can bring its offerings down to manageable proportions. There were far too many bulls at the sale this year which had "common" stamped all over them.

The Calgary show should be the show case of the purebred industry of Alberta. It should be made the prestige show, the one for which the top breeders will save their best animals. It is in danger of becoming the place where breeders take the bulls they have not been able to sell on their farms.

Farm and Ranch Editorials

Please, Mr. Douglas— make your own mistakes

WE would be prepared to take the pose of mutual animosity of C.C.F.'ers and Social Crediters more seriously if they carried their alleged differences into practical affairs. The trouble is that when either needs a model for something, it turns with sure instinct to the other. The fact that Mr. Douglas does most of the idea borrowing and Mr. Manning most of the lending only arises because of Mr. Manning's longer tenure of office. If Alberta's policies were not excellent models of socialism in action, Mr. Douglas would hardly be so eager to use them as models.

It is significant that Saskatchewan turned to Alberta for guidance when it was setting up its mineral resources system. It did not turn to Texas to see what it should do with the mineral rights that had been withheld from the settlers of the province. Texas relinquished its title to the people on the land. Alberta, where the socialist theory of rich governments and poor people holds sway, withheld the mineral rights and kept them for the government. So does Saskatchewan.

Lately we've noticed several kites being flown in Saskatchewan in connection with extending the boundaries of the municipalities. Alberta invented that. And Alberta pioneered the big school unit which Saskatchewan followed. In connection with rural electrification, Saskatchewan borrowed more from Alberta than it did from Manitoba. In Alberta, the farmers have to pay the entire capital cost of the lines that

bring the power to their farms. In Saskatchewan they pay half the cost. In Manitoba and Ontario, the power is brought to their fence lines without charge.

A spokesman for the Government, defending the Saskatchewan system, said it was fair and reasonable because the farmers would ultimately have to pay the shot regardless of the method used. Well, there is a certain plausibility to this argument. Certainly it was telling enough to enable the Alberta government to escape completely from any responsibility for taking power to the farms of Alberta. It is fallacious none the less.

Because of the geographic and political factors involved in the settlement of Canada, from the dawn of our history until now, we have always followed a policy of averaging the cost of our services over the whole people. We have always recognized that there were certain areas of the country which could never be either settled or serviced if the full cost of service was charged against the people of these areas. If the full cost of the railways had been charged to the people of the West, they could never have been built and operated. If the cost of canals had been charged to the users, they could never have been built.

In our utility operation, regardless of whether the operation is by private enterprise or public ownership, the universal policy has been to provide flat rate service regardless of the installation costs. The capital costs of the entire distribution system

are spread over all the users, regardless of the proportion of the total each user is responsible for.

Where population is concentrated, in the cities and towns, capital outlay per user declines. But where population is sparse, as in our farming areas, the capital cost per user increases. If the farmers have to pay that difference it is an exorbitant charge. But if it is averaged over the whole system it will amount to almost nothing. It will increase the power bills of urban users by only a few cents a month.

This system of averaging the price over the whole field has been adopted by business generally. We pay the same price for our cigarettes and tooth paste in Swift Current as we do in Rosetown and Indian Head. City gas stations, with big sales turnover, could sell gas for less than the country stations. They don't because again the price is averaged over the field. So there is no good reason why the cost of installation of power in Saskatchewan should not be spread over all the users, as it is in Manitoba, Ontario and in Quebec.

The present system is an insidious thing. Because they want power badly, some farmers will be content to pay half the cost of bringing it to their farms. Then, next year, they will be used by the Government as an excuse for not being able to do otherwise for anybody else. Why, they will ask, should John Jones now get power brought to his farm gate when John Brown had to pay for his power? The answer of course is that exacting the payment from John Brown was wrong in the first place.

Saskatchewan, today, is where Alberta was on the power question three or four years ago. The mistakes which Alberta made will prevent at least 60 per cent of the farmers of Alberta from ever getting power. The least the people of Saskatchewan should expect from the Douglas government is that it make its own mistakes and not import them second hand from Alberta.

Social Credit nonsense is still nonsense

ONE would have thought that our financial experiences during seven years of war would have permanently rid us of the economic nonsense of Social Credit. Apparently not, for some recent developments remind us that this is where we came in, away back in 1935.

Within a couple of days in the Alberta Legislature, we had a full blown, old-fashioned Aberhartian Social Credit speech from Mr. Landeryou, and what looked very much like a reference to a Social Credit dividend in Mr. Manning's budget speech.

Like the Socialists, the Social Crediters thrive only in hard times. While times are not exactly hard now, no doubt both have hopes. So the Canadian public will again be subjected to a barrage of Social Credit propaganda, geared this time to the idea that it was because we adopted Social Credit methods we were able to finance our war effort. Or, as is often said: "After all, we financed the war with Social Credit."

This is not only nonsense; it is danger-

ous nonsense. We financed the war with just the reverse of Social Credit. We did it primarily by borrowing and taxation. We did it by rigidly controlling both production and consumption. The Social Credit theory is that you must continually pump new "debt free" currency into the money supply. Carried to its logical conclusion, the payment of Social Credit dividends — the \$25 a month for everybody idea — would be inflation without rationing or price control. Surely our memories are not so short that we need any further instruction on what that means.

The sort of Social Credit dividend that Mr. Manning seems to envision, bears no resemblance to that invented by Mr. Aberhart, and the one that Social Crediters like Mr. Landeryou and Mr. Blackmore talk about. He is thinking in terms of paying a dividend to each citizen of Alberta out of revenues from the sale of natural resources.

Mr. Aberhart's famous dividends were to be materialized, from his fountain pen,

the same pen that the banks used to create credit and wealth out of thin air. But Mr. Manning, to complete the analogy, would pay his dividends from the dismantling and sale of the bank premises. Or, to put it another way: Mr. Manning, having sold our farm, proposes to return the payment for it to us in monthly or yearly installments.

There is no connection whatever between what Mr. Manning seems to be talking about and Aberhartian Social Credit. And there is no comparison possible between Aberhart Social Credit and the fiscal policies that were used so successfully in this country during and after the war.

Perhaps we take all this too seriously. But it does seem to us that it may be useful to get the record straight in the hope that it can be kept straight when the oratorical barrage reaches its peak. The fact that Mr. Manning is head of a government which has enriched itself by selling off the capital assets of the province can surely add no validity to the Social Credit economic theories. Nor would the theories be substantiated if Mr. Manning decided, before the next election, to distribute some of the money he got from selling off natural resources. He would just be dividing up the money where he refused to divide up the resources. We would each be in a little money and out millions of dollars worth of resources.

Herefords drag badly at Calgary Bull Sale

By JAMES H. GRAY

THE Hereford breeders took a beating at the Calgary Bull Sale last month, a fact which surprised nobody but the Hereford breeders. This was easily the outstanding feature of the 1954 sale. Other highlights were:

The trend away from the compressed, blocky, "pony" type bull has become something akin to a stampede.

The swing in the direction of the polled variety of Herefords has become pronounced.

The results of the sale raised questions as to whether the Hereford breeders have over-estimated the popularity of their breed; whether the Herefords have not now about reached their peak.

Unless steps are taken to cull entries to the Sale back to manageable size there is little doubt that the Calgary Spring Bull Sale is on the downgrade.

The Calgary Sale has long been regarded as a barometer of the livestock industry on the prairies. That fact made it an event of interest and importance far beyond the immediately environs of the sale. From the comments of most outside observers, it was apparent that the sale reached a cross-roads this year.

Largely because of the insistence of the Hereford breeders, the 1954 sale was stretched over two full weeks. Outsiders who saw this as a backward step and were concerned for its effect on prices of all breeds, saw their fears justified with the first sale.

The Aberdeen-Angus were the first to sell and the average for the black polls dropped \$65 below last year and \$320 under the mark set in 1952. The Shorthorns followed and the average for that breed dropped \$43 and at \$432 was \$100 below 1952.

When it came the Hereford turn to sell, 754 bulls sold for an average of \$533, decline of \$114 from 1953 and a drop of \$237 from 1952.

Prior to the sale, it seemed to be the general opinion of Hereford people that they didn't need the other breeds to make a sale; that they could bring in as many bulls as they wanted to and buyers would be on hand to bid for them.

As it turned out, approximately 30 bulls were not sold; some being withdrawn by their owners when prices failed to approach what had been expected.

The outstanding feature of the Hereford sale, aside from the slowness of the bidding and the poor price received for the bottom half of the animals sold, was the trend toward polled bulls and toward bigger bulls. The bidding for the polls was

usually spirited, even in the case of inferior animals.

There was no doubt that the kind of bulls that sells best in Calgary are the larger, thicker, heavier boned type. In fact some excellent animals with nice bloom, typey conformation and excellent heads were hard to sell, while the common variety of larger scale sold readily.

While great attention is paid by the breeders to the American buyers, few bulls went to the States this year. Most of those that did go were to ranches where previous experience with Canadian stock had been good. The dealers who were interested in large purchases of stock for re-sale were not in evidence.

Rapid Drop

The Hereford sale was very brisk the first day and gave every indication that the average would be well up to last year. But enthusiasm started to decline the second day and from then until the close of the sale had few bright spots. The consensus of observers around the ring was that bulls comparable to those that brought \$1,000 on the opening day sold for between \$690 and \$700 toward the end of the sale.

Excellent prices were obtained for the top cattle of all breeds. C. E. Jones of Balzac sold his reserve champion Hereford for \$5,300, while the champion brought \$2,700 for the McIntyre Ranch.

The Old Hermitage Farm got \$1,975 for its champion Aberdeen-Angus, and the top strings of Angus cattle sold well.

William Melnyk & Sons of Chipman sold their champion Shorthorn for \$2,300, and they averaged \$1,295 for their string of five head.

The plainer bulls, particularly in the Herefords, acted as a dead weight on the averages. In the Hereford sale, more than 140 bulls sold for less than \$300 a head. There was no profit in raising bulls for any of these owners.

The interest being shown in the polled cattle by the Hereford people reflects a boom in the hornless variety that is taking place in the United States. One American visitor to the Calgary show suggested that this trend will become much more apparent in Canada when more polled bulls of better quality are offered for sale.

Ice cream sales in Canada in 1953 reached an all-time high of 230 million pints, an increase of 400 per cent in the past 15 years. Last year's consumption was equal to 98 cones for every man, woman and child in the country.



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Today, 5½ million Canadians have voluntary insurance against the burden of hospital costs. Nearly 4 million enjoy protection against surgical expense. And about 3 million have the newest form of protection: medical expense insurance. *And most of these people have acquired this protection in the last ten years!*

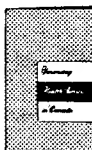
Where did all these people obtain this much-needed help?

Mostly from insurance companies, Blue Cross plans, and medical care plans which are sponsored by the medical profession. Others acquired protection from insurance co-operatives, fraternal benefit societies, employee benefit associations.

Keen competition among the various insuring agencies has brought a steady broadening of benefits and greater protection for an ever-increasing number of Canadians. Thus today most of the hazards of illness and accidental injury may be covered through the voluntary insurance plans offered by one or more of these agencies.

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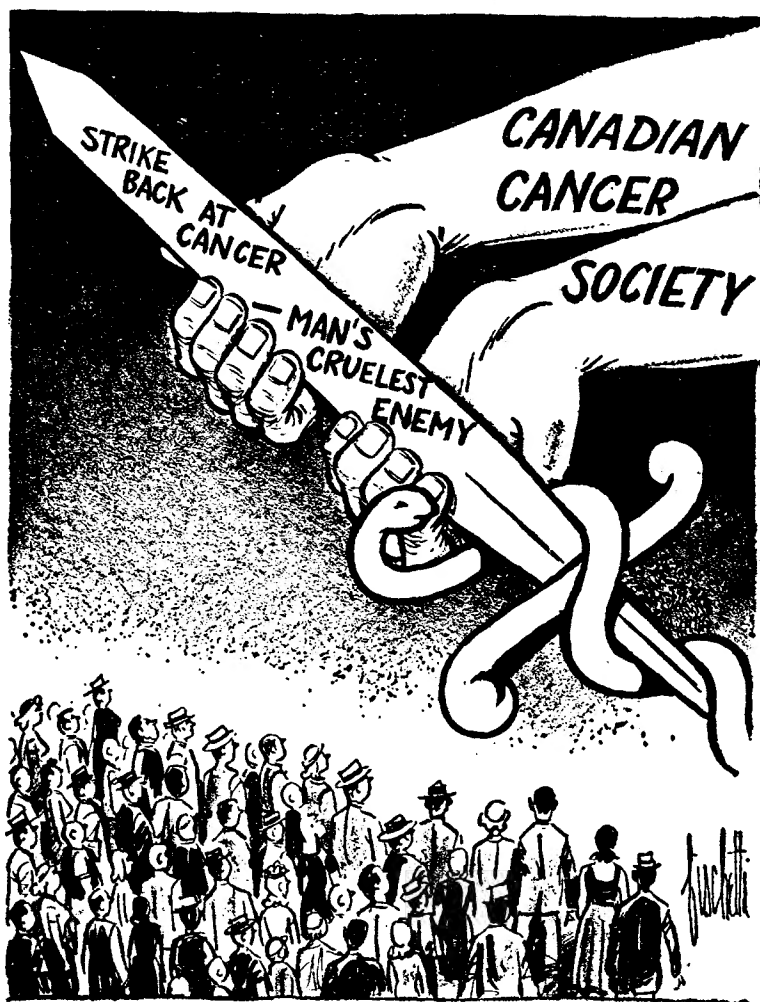


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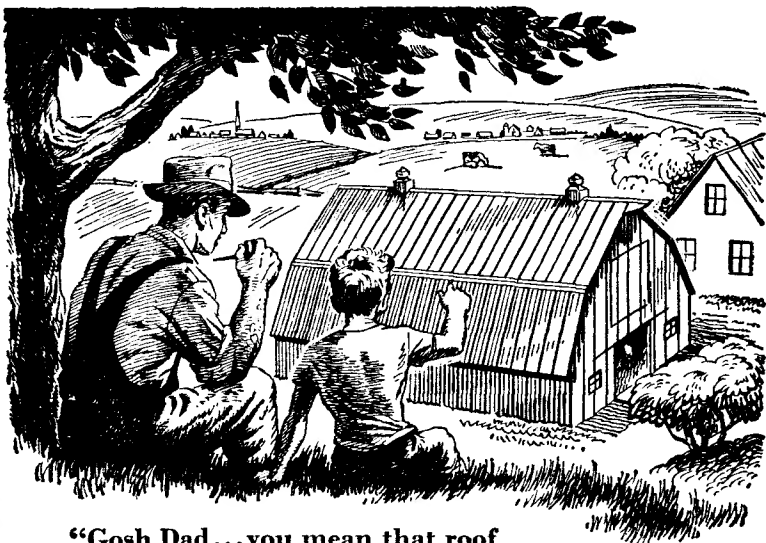
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Here is the case for beef cross-breeding

By GRANT MacEWAN

AT the Lloydminster Bull Sale of last spring, Saskatchewan's Minister of Agriculture bought a white Shorthorn bull for use on his Aberdeen-Angus cows. A little earlier in the season, a prominent Alberta rancher was seen buying Shorthorn bulls for crossing with his Hereford cows.

At the annual Feeder Shows at Moose Jaw and Saskatoon, a uniform pen of crossbred "blues" or Shorthorn x Hereford roans will nearly always outsell a group showing similar quality but of straight breeding. And at one of the recent conventions, the most spirited of the noon-hour discussions was about the net advantages, if any, in crossbreeding as a means of getting market cattle.

That the crossbred steer possesses a little extra of something, there can be no doubt. It is pretty well established that the crossbred pig or crossbred corn plant has inherited something that can lead to some degree of additional growthiness and vigor with cheaper gains. Physiologically, it seems to mean that the crossbred is a better animal than either of its parents.

For that extra bit of "physiological punch" which the crossbred seems to inherit, technical workers use the name hybrid vigor or heterosis and they suggest that the wider the cross, the more hybrid vigor can be expected. Hence, if an interspecies cross like wolf x domestic dog or donkey x domestic mare, is made, the resulting hybrid can be expected to possess a special degree of vigor and hardiness. The husky dog and the much maligned mule, both high in robustness, seem to bear this out. If the stockman who dreams of seeing his cattle hibernate all winter as a means of eliminating farm chores in the cold weather is ever successful in hybridizing Herefords and brown bears, he will probably find that he has also a powerful degree of crossbred vigor.

The cross between common cattle and Brahmas is a wide one and the hybrid vigor which has been noted in the offspring must account in large part for the wave of popularity which came to the Brahma in some sections of the country in recent years. In the same sense, the crossbred from two parent strains not widely separated in type and origin, cannot be expected to display much of the "extra" in its performance.

What Next?

Two questions are likely to present themselves in any practical discussions about the case for crossbreeding in farm ani-

mals: first, is the ordinary run of farm crossbreds likely to show a really significant and conspicuous degree of hybrid vigor and, second, where hybrid vigor is established, are the net gains likely to be sufficient to more than compensate for certain costs and disadvantages to make the practice definitely worth while?

Experience and experiments over many years have pretty well answered the first question. Crossbreeding has become quite a common practice in meat production in some parts of the world, especially in countries specializing in pork and lamb. The New Zealanders, for example, have employed the practice of crossing in producing their choice lamb carcasses for export, using Down rams on ewes of their own Corriedale breed. Crossing has been employed in Danish bacon production and Scottish experience in making prime beef for the Smithfield market through the years has lent support to the case for crossing.

But what does the experimental data show? The results have certainly not been uniform but most experiments have shown the crossbred animal to enjoy an advantage in rate and economy of growth. Often that advantage has amounted to six or eight per cent. Some of the most convincing evidence has come from pigs obtained from double-mated litters.

When a pure-bred Tamworth sow is mated to a pure-bred Tamworth boar and also to a pure-bred Yorkshire boar in the same heat period, it does not follow that she will conceive pigs to both sires. At the same time, there is no particular reason why she shouldn't conceive to both and if she does, she will be carrying pure-bred pigs and crossbred pigs in the same litter, with both kinds clearly identified; the pure-bred Tamworths will be red and the crossbred Yorkshire x Tamworth pigs will be white because white color is dominant to red in pigs.

Where an experimentalist is fortunate in getting a fairly even number of pure-bred pigs and crossbred pigs in the same litter, to be born the same day, exposed to the same weather and temperatures, and started with the same milk supply, that worker is likely to recognize the exceptional value of such test material.

A Berkshire sow at the University of Saskatchewan, in 1929, provided a litter consisting of six pure-breds and four Tamworth x Berkshire crosses. Compared with the pure-bred litter-mates, the crossbred pigs were heavier at birth, made the

fastest gains by more than ten per cent and made the most economical gains.

Big Difference

A Tamworth sow at the same institution provided a litter made up of three pure-bred Tamworths and three Yorkshire x Tamworth crossbreds, in the spring of 1930. Again, the crossbred pigs were the heaviest at birth and in rate of gain, the crossbreds showed an average of 1.56 pounds per day compared with 1.36 pounds per day for the pure-breds. The difference in feed costs per hundred pounds of gain was 7½ per cent in favor of the crossbreds.

Scores of the more orthodox type of experimental trials with pigs, pretty well bear out those figures. With cattle, the experimental evidence is not so extensive. One cannot overlook certain achievements like the formation of the Santa Gertrude breed of beef cattle, however; here is a breed developed by the King Ranch of Texas and resting squarely upon crosses made with Brahmas and Short-horns.

Probably the biggest experiment in crossing beef cattle to be conducted in Canada, was described as the Matador Trial and directed by Saskatchewan workers between 1930 and 1936. The breeding herds for the tests consisted of 40 Shorthorn cows, 40 Herefords, 40 Aberdeen-Angus and 40 Galloways, selected in the spring of 1930 and placed on the Matador Ranch, north of Swift Current.

For the first year, Aberdeen-Angus bulls were released with the composite herd with the result that the calf crop in 1931 included pure-bred Aberdeen-Angus, Angus x Shorthorns, Angus x Herefords and Angus x Galloways. For the second season, Hereford bulls were used; in the third season, Shorthorn bulls and in the fourth season, Galloway bulls.

Calves were identified at birth and records were kept for each group. At weaning time the calves were weighed and removed to experimental feed-lots where rate and economy of gains could be studied. At the end of the experiment there were data on the performance of calves representing each of the pure breeds and calves from every possible cross: there were the four lots of pure-bred calves and 12 lots of crossbreds to go through the experimental mill.

Same Edge

Breed differences were not very great and while no single cross was outstanding, the crossbreds had a fairly consistent edge over the pure-breds in growthiness. The crossbreds on the whole, weighed 10 pounds per head more than the pure-breds at weaning time. And in feed-lot gains, 120 pure-bred calves of four breeds made an average of 1.69 pounds per

day while 329 crossbreds made 1.74 pounds per day.

These differences in gains may have to pay in two ways, first by the necessity of maintaining cattle of two breeds instead of one, and second, in sacrificing some of that uniformity of color and appearance that should characterize the herd which is graded up with a single breed.

Then the cattleman who looks favorably upon introducing a crossing bull into his herd, will ask himself where he goes from here. In that connection, it should be pointed out that the old idea that crossbred females should not be retained for breeding, is quite false. Actually, the crossbred female should possess as much advantage in hybrid vigor as the feed-lot steers show and therefore, be superior workers in the herd.

That hybrid vigor cannot be maintained in successive generations unless new germplasm or new breed material is introduced, but such is not a valid reason why that same crossbred female should not be regarded at least as highly as any other grade female in the commercial herd and a candidate for breeding to a bull of one of the breeds from which she sprang. In other words, she is just another grade cow but she can be a good one.

But is there no method by which the benefits of crossing can be perpetuated indefinitely? The University of Minnesota has proposed a "criss-cross" method in breeding pigs, to give a continued benefit. After crossing breeds A and B, the proposal is to breed to C and thereafter to sires of the same three breeds, in a rotational order. If hybrid vigor is in proportion to biological differences in the parental strains, then the rotational breeding plan could afford only a measure of the extra vigor that would come from a first cross between two new breeds.

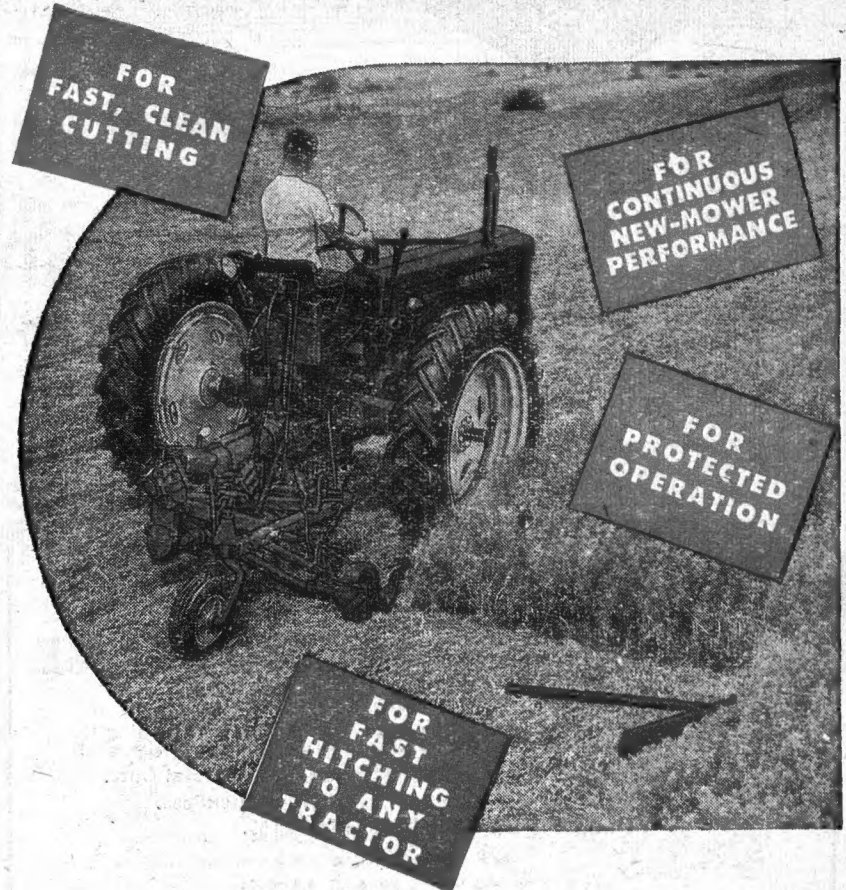
For such benefits as that modified crossing program would afford, there is no reason why the beef grower who has no obligation to mixed colors, should not rotate among Hereford, Shorthorn and Aberdeen-Angus bulls for the sake of a "little extra" that might be secured.

It is unlikely that sweeping recommendations will be made about the wisdom of embarking on a crossing program in cattle production. The cattlemen must make their own decisions, but the majority will very probably continue to operate on a one-breed basis. Some day the breeders of pure-breds will be furnishing inbred lines which will allow crossing material with crossing benefits within the bounds of a single breed.

Sure, there's something in crossbreeding but it's still not clear that the net advantages are big enough to warrant making it a common practice among cattlemen.

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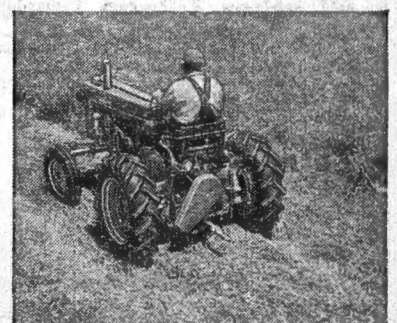
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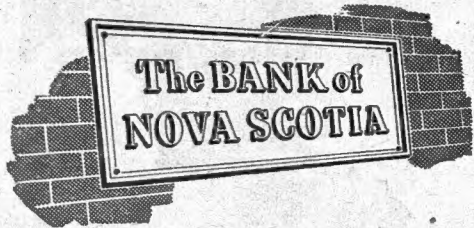
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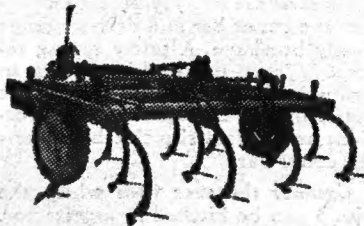
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Perennials old and perennials new

By H. F. HARP

MOST prairie gardeners are familiar with the old-fashioned perennial flowers such as Peonies, Iris, Delphinium, Scarlet Lightning and several others. Their appearance is eagerly awaited in the spring; their rapid growth amazing, and their period of bloom ends all too soon. The perennial border then takes on a down-at-heel look and the showy annual flowers provide most of the garden color unless we have included a collection of late flowering perennials which will outlive the hardiest of the annuals.

A plea, then, is made for the wider use of these late flowering plants which are able to fill the gap from August to October. Some have remarkable resistance to frost as late as mid-October. The hardy flower garden can be a colorful spot by using a number of these late-blooming sorts.

The results of extensive tests made at the Experimental Station, Morden, are reported on here, and prairie nurserymen have a large collection of varieties from which to choose.

Perennial Asters or Michaelmas Daisies, are now available in miniature form, just regular mounds of color scarcely a foot high to tall branching plants bearing masses of flowers brightly colored and highly tolerant of frost. Many of the old-time varieties of European origin were found to be far too late for prairie gardens. The following list of hardy Asters have proven satisfactory in southern Manitoba:

Very dwarf — Snowsprite, Marjorie, lilac pink; Victor-Blue; Medium tall — Princess Margaret Rose, a lovely, large flowered rosy pink, Pacific Amaranth, rich violet purple, Arctic, white.

New tall varieties with immense flowers are: The Dean, The Archbishop and The Cardinal. These are a little late in some seasons, but when the autumn weather is moist and severe frosts do not come until October they are a magnificent sight.

All these hardy Asters require a well drained soil, low spots, where snow water lingers in the spring, had best be

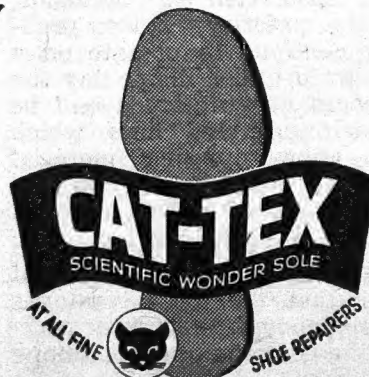
avoided or trouble will result from rotting of the crowns. It has been observed that a border of these plants which faces either east or north will suffer less damage from frost than one exposed to the west or south. This is probably because the plants are shaded from the sun and therefore thaw out gradually.

Another important cultural recommendation is to divide each plant every other year into single shoots, transplanting as many pieces as required, spacing them about 18 inches apart, completing the work before the middle of May. The tall kinds require a small stake to support the plant the first year; the compact dwarfs and medium tall ones do not require support.

Hardy Chrysanthemums — Great strides have been made in the development of suitable varieties of hardy "Mums" for prairie gardens. Formerly most of the varieties available were too late and too tender to stand the winter. There are now offered for sale many kinds which may be depended on to flower in August and September. By placing a mulch of flax straw or corn stalks over the plants in October, they will spend a more comfortable winter. The same treatment as already outlined for the Asters regarding division and replanting will serve also for the garden "Mums"! Skinner's Nursery at Dropmore, Manitoba, offer a wide variety of hardy Mums suitable for the prairie garden.

New Delphiniums—The Pacific strain of these noble plants are now widely known and grown from one end of the country to the other. They are easily raised from seed, either sown in frames in May to bloom the following year or may be sown in mid-February indoors to be transplanted to the open ground in June for flowering in late summer.

The new "Astoleet" series give flowers of lovely, soft, lilac-pink shades that are most attractive. Delphiniums need rich soil, plenty of moisture during the growing season and full sun. As the plants are tall and have rather fragile stems, they



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should be given a sheltered spot in the garden and supported with strong stakes.

A new pink flowered Delphinium called Pink Sensation has been on trial at Morden for several years. It is fully hardy and quite distinctive with soft, old rose colored flowers which appear in July and continue through September. The plant grows only two feet high. Pink Sensation is offered for sale by several Canadian nurserymen, but if difficulty is experienced in obtaining stock, write to the Experimental Station, Morden, Manitoba, for a source of supply.

Day Lilies — There was a time not too long ago when these hardy plants were only obtainable in shades of yellow. Now they may be had in shades of rose, apricot, and darkest red. A few of the newer ones so far tested include Baronet, which produces masses of rosy-red blooms in mid-summer and again in early autumn.

Chisca has lovely rose-pink flowers suffused pale yellow in July and August.

Linda is buff-rose with waved petals and a deeper rose throat.

Minnie has dark crimson flowers. The petals are heavy textured — a handsome kind.

Sachem is bright red with shadings of rich apricot in the throat, a very showy variety.

These new varieties of Day Lilies are all fully hardy. They add considerable interest to the collection of these useful plants. Either full sun or a little shade suits them, but plants grown in the sun will bear more flowers as a general rule.

A new Artemisia called Stelariana is a most useful grey foliage plant which enjoys full sun and sandy soil. The silvery shoots may be cut and used as foil in table bouquets. It is highly complimentary to bright pink shaded flowers.

Monardo Groftway Pink originated as a hybrid between the native Beebalm and Monarda Cambridge scarlet. It's showy heads of rich coral pink flowers are a feature in July and early August, while the foliage gives off a pleasantly pungent odor when handled.

Pentstemon Rose Elf is new and noteworthy. The plant grows to two feet bearing graceful spikes of pure pink flowers in July and again later in the fall. Full sun and well drained soil are necessary to its welfare.

The common Baloon flower is well known and esteemed; now there is a rose pink form as well as double blues and whites. All are hardy. Being very late in starting into growth, they are sometimes cut off by the hoe before they are observed pushing through the soil.

Polygonum Caspidatum is new and attractive over a long period. It has masses of salmon-coral flowers in late summer with foliage that turns as red as a maple. For the front of the border, a spot should be reserved for this newcomer which only reaches a foot or so high.

The double-flowered forms of Shasta Daisy, Esther Read and Mount Shasta have wintered in southern Manitoba when conditions have been favorable, but more often than not they succumb to the trying, sudden changes of heat and cold in spring.

The practice of lifting a plant or two in the fall, to be wintered in a basement window or cool room upstairs, will repay the effort and young plants will be ready to set out in June to flower in late summer.

Seasonable Hints

Spring work in the perennial border will first be directed to cleaning off all the last year's tops; gather up all refuse, and make a bonfire of it.

Fork a dressing of complete fertilizer into the border before the plants get more than a few inches high. A pound of 11-48-0 per 100 square feet will do more good in early spring than later on in the season.

It is advisable to order seeds and plants early. Perennials should be planted by May 15th. Peonies, Iris, Lilies are best planted in September, but dormant plants, which were lifted in the fall, will respond to spring planting if they are not allowed to dry out in periods of summer drought.

Sweet Peas should be sown as soon as the ground is dry enough to walk on comfortably. A frequent mistake is to sow the seeds too thickly. By dropping a single seed at two-inch intervals along the row and thinning the plants to stand six inches apart at least finer specimens of bloom will be had. Trials with the new Cuthbertson strain of Sweet Peas have been disappointing. They have not shown drought resistance in any marked degree, nor have the flowers equalled the best of the named Spencers.

Vegetables

Tomatoes are an important crop in prairie gardens. New and improved varieties make it possible for most regions to produce ripe fruit. Failures are due mostly to a poor choice of varieties and faulty cultural practices.

One frequent mistake is to sow the seed too early which results in spindly plants that suffer a tremendous shock

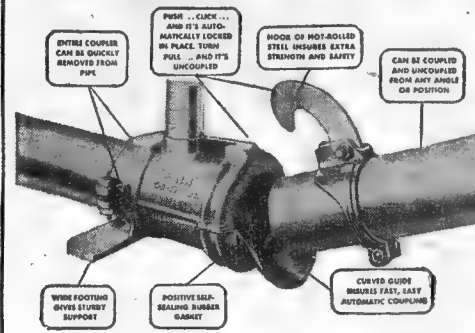
when exposed to outside weather.

By making a sowing April 7th in a sunny window, using a shallow box or four-inch flower pot, sturdy plants can be produced by June that will go ahead without check, providing they have been hardened to outside conditions.

If a shallow box is used for seeding, try spacing each single seed half an inch apart, covering them not more than a quarter of an inch deep.

Satisfactory varieties are Early Chatham, Bounty, Meteor. Red Skin is very early with smallish fruits.

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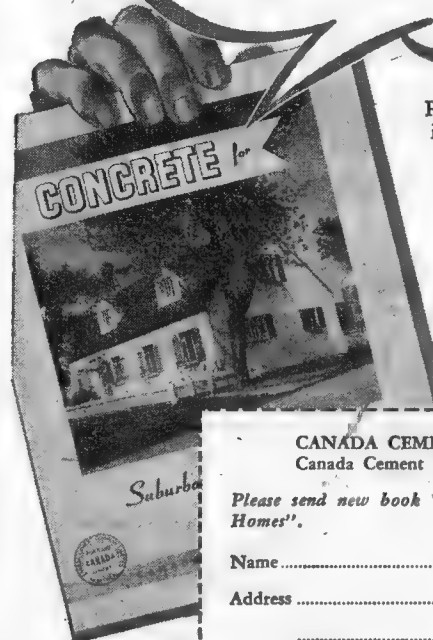
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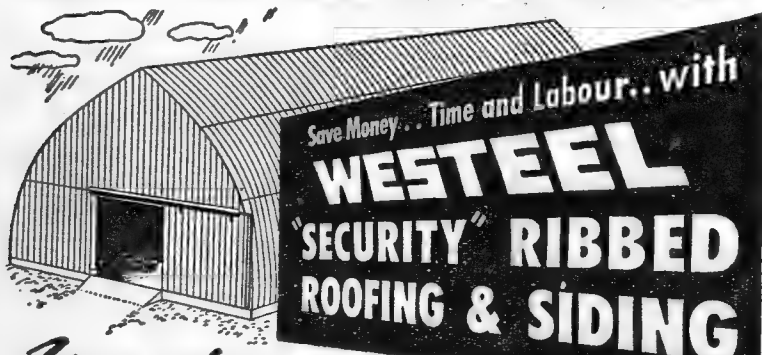


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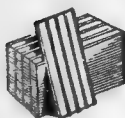
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Everyone's favorite Bird— the American Thrush

By KERRY WOOD

SPRING is rushing at us from all sides now and Robins are plentiful in almost every garden. By mid-April we take them for granted, which is a bad mistake. The American Thrush or Robin is one of Western Canada's most interesting birds, yet it is so commonplace that few of us bother to study it closely and save our enthusiasms for rarer birds.

The first robins we see are all males; they arrive two to three weeks before their ladies. It is the duty of each male robin to locate a nesting territory; this doesn't mean a tree or window ledge or cross-beam in a shed on which to place the nest, but merely a small but exclusive area for a home territory. The male selects a likely looking region and stakes out a claim to it by singing from various perches on the outer perimeters of that area. Many a fight develops between males who fancy the same spot, though there are many common meeting places such as spacious lawns or pasture fields where territorial claims do not matter at all and dozens of birds may gather there in amicable groups.

So the robin song is a vocal fence, a melodious announcement to all listeners of the same species that the district near the singer has been reserved. Then the females arrive, and again fights break out. Not always between males, mind you, but frequently between females who fancy the same male and the nesting region that goes with him. With the coming of the ladies, the season's business gets properly started. The selection of mates and territories is soon finished — according to ornithologists, who have made careful, leg-band studies of robins and their behavior, we cannot accept these birds as

model bird-couples. The male's affections will stray at times, whereupon Mama Robin tries to trounce the female bird who has flirted with her mate. Mama is the best behaved of the pair, apparently, but even lady robins are not moral paragons if we can believe those who should know.

The nest is built. Papa helps with this chore, though Mama usually adds the finishing touches. It is an amazingly well built structure which can be fully constructed within the short space of three hours. Occasionally a nest is started one day, then completed in spurts during the next two or three days. However, usually the whole nest-building operation is started and finished within a few hours early on a sunny morning.

Four Eggs

Then Mama lays the first egg. The average clutch numbers four eggs, deposited in the short space of two to three days. The setting starts. Papa is singing often now, on guard around the boundaries of the region and willing to fight fiercely to keep the territory. At this time the males will fight to the death if necessary. And they are greatly concerned about other enemies, too. Remember the alarm and anxiety so often voiced by male robins during the nesting season, when a cat, magpie, small boy or foraging grackle comes near the nest?

Mama is a good brooder. The egg clutch is deserted for only brief periods. Not during the heat of the day, because at such times Mama's screening body keeps the eggs from getting too warm in the direct rays of the sun. The regular periods for her to leave the nest is shortly after sunrise and again during

the early evening. Papa perches near the nest at such times, watching for marauders while Mama rustles some grub and enjoys a drink and a bath. Insect hosts are now abroad, worms are plentiful near the surface of lawns, so it is a time of plenty and Mama has little trouble finding food.

Papa is still singing lustily when the shells break and the naked birdlings are hatched. Now he takes turns with Mama, hunting for food for the babies. The fledglings don't require much at first. One worm can be deftly severed into four parts and divided among the whole family. A few days later it's a very different matter. Incidentally, the growth of the young depends upon the weather: if the weather is favorable for food gathering, the fledglings are given heavy meals and grow rapidly. Papa's song periods wane drastically as the food requirements of the young increase.

Born Blind

At first the birdlings can't see, but they feel the thump of Mama or Papa alighting on the nest edge and promptly raise their heads and gape their beaks. Food makes them sleepy, hence only the hungriest young one responds to the arrival of a parent and opens its beak for attention. However, a young bird's digestion is rapid; the food is quickly assimilated and the waste discarded. The parents keep the nest scrupulously clean at first, until they become too busy with feeding demands — then the youngsters themselves try to keep the nest clean.

The naked and blind state is quickly over. The young birds are feathering out, their bright eyes peering around at the wide world nearby. Their vocals become increasingly louder as they welcome home Mama or Papa from a food hunting excursion. Papa has no more time for singing during the daytime. Both adults are always busy, gathering food. Strangely, the babies do not recognize food by sight as yet: a worm must be jammed deep into their yellow-rimmed beaks before they'll swallow it. A worm dropped into the nest among them will be eyed by the youngsters, but they will not attempt to pick it up and eat it. Soon, however, they start pecking at itchy places on their own bodies — at bases of feathers, at parasites such as bird-lice, occasionally reaching out to rap at a fly that chances near the nest.

Depending on food and weather, the time of leaving the nest varies from ten to twenty days after hatching. Then both parents become frantically busy, trying to feed the scattered family. Now the vocals of young birds are most important: the louder the squawk, the hungrier the young bird and the more apt it is to attract the harassed attention of the parents. A full beak-load of worms

jammed down a youngster's gullet will make it sleepily content for about five minutes. During that time, Mama and Papa have a chance to make the rounds of the other fledglings and jab beakfuls of food into them, then they hurry back to the first baby who is now yelping loudly again.

Second Batch

A few days later, Papa takes full charge of all the feeding. Mama has built another nest and started a second clutch of eggs. Ornithologists say that Papa is not necessarily her husband for this second family, but in most cases — "Let's hope for the moral best, anyway! Papa's youngsters are getting more independent every minute. Notice that Papa doesn't have to jam the worms down their gullets; the youngsters follow him around the lawn and grab at a wriggling worm before it is pulled clear of the earth. This gives the fledglings an idea that it personally captured the worm, which is excellent for the juvenile ego. The young bird starts picking up slugs, grubs, and various insects, cocking an ear at enticing wriggings among the grassroots and eventually digging out a worm for itself. Hoopla! The bird is practically all grown up now. Within ten days of leaving the nest, the youngsters are completely on their own.

That is necessary, because Papa has other chores to busy him. The second egg clutch has hatched out and another dizzy round of feeding begins. Robins average two families a season in Western Canada, but three broods are by no means uncommon. Then comes the holiday period of August and September, when robins feast on wild fruits and insects and get fat. They don't migrate in large numbers until late in October and sometimes November during open autumns. Winter sets in, and robins are gone until that wonderful April day next spring when we hear again the cheerful chirp of everyone's favorite bird.

Attracting Robins

If you want robins around your home, put up nesting platforms for them under house, garage, or barn eaves. A piece of board measuring 6 inches square will suffice. If perching trees are scarce near your home, provide robins with T-shaped perching poles: a two-foot length of broom handle nailed to an 8-foot length of 2 by 2 makes an ideal T perch for birds, spacing the T perches along fence-lines. Best of all, give them a bird bath. A shallow tin pan on a post will do for a bird-bath, but be sure to keep the water fresh in it. Robins visit watering spots five or six times daily throughout the summer.

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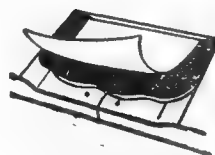
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INTERNATIONAL HARVESTER

What is your kind of feeder calf?

By J. C. MILLER

In The Polled Hereford World

THIS question of feeder calves is an age-old question and comes up wherever cattle and cattlemen gather. While they may agree on many of the requirements of the ideal feeder calf or steer, differences of opinion are commonplace. Before attempting to discuss this point, we should consider the basic principles underlying a sound, commercial beef operation.

Why grow beef cattle? There are many good reasons for growing beef cattle, but only the major ones will be listed here. Perhaps the most important one is that they provide a profitable means of marketing grass, forage or roughage. Secondly, beef cattle utilize unmarketable feed produced on millions of acres of rough land where such vegetation would otherwise go unused. Third, when properly managed, a beef cattle enterprise will normally be a sound and profitable one over a period of years. Fourth, the production of beef provides man's finest food. Fifth, a sound beef cattle operation is a source of satisfaction to the owner and contributes toward a stable agriculture and better citizenship.

While grains and other concentrates will continue to make up a substantial portion of the ration for cattle, it is inevitable that in the future a higher percentage of our nation's beef supply will be produced from roughages in the form of green growing feeds, cured and dehydrated hays, or ensilage.

The economics of the commercial cattle business will bring about a greater utilization of roughages through beef cattle whether we like it or not. Roughages are bulky, relatively low in total nutrients and high in fiber or cellulose. Because of the fermentation vat known as the rumen or paunch which cattle have, the bacteria in that vat can break down cellulose and convert it into useful compounds which are used for growth and fattening. Animals with simple stomachs can not do this; hence, they can utilize only small amounts of roughages. However, the pig and the chicken can make more efficient use of concentrates than can the cow or the sheep, and for that reason they will continue to use increasing amounts of our grain production in the future.

What Kind of Steer? If the steer of tomorrow is destined to make most of his growth from roughages, what kind of beast will utilize that kind of feed to best advantage? Will it be the small, refined, high quality kind, or one with more scale, more capacity, and more constitution? Numerous studies have

been made comparing rate and economy of gain by cattle of large and small types, both in the feedlot and on pasture. When fed a fattening ration (about two parts concentrate to one part roughage) small cattle have gained almost as fast and as economically as large cattle for a short time, but because they fatten earlier and because it takes more feed to put on a pound of fat than it does a pound of red meat, small cattle are at a disadvantage after a relatively short feeding period. Larger cattle will continue to make good and economical gains over a much longer period. Experiments have also demonstrated that the advantages favoring large cattle are even more striking on pasture than in the feedlot.

In performance and progeny tests conducted by the Texas Agricultural Experiment Station on young beef breeding animals, growing rations consisting of about two parts roughage to one part concentrate are used. About 2,000 young breeding animals have been tested over a 140-150 day feeding period since 1942.

Almost without exception, the higher gaining animals have been those with larger frames, more feed capacity and more growth in general. Some young bulls have gained as much as three pounds daily on rations of 65 to 70 per cent roughage. Others have gained barely half that amount on the same ration.

There has been a surprising lack of relationship between so-called good beef conformation and satisfactory rate and economy of gain. Does this mean our ideas of good beef type are all wrong? Do we need to adjust our sights or to revise our standard of perfection? Should we place beauty and symmetry of form above performance? Or is it possible to combine desirable form with satisfactory performance?

Yes, it is possible to combine form and performance. A certain percentage of our cattle have it now. Our trouble lies in the fact we have over-emphasized form at the expense of performance. Any such program of selection is unsound and doomed to failure sooner or later.

The final measure of a beef steer is in the evaluation of his carcass. Here again we need to revise our thinking and our standards of carcass values if we keep pace with consumer trends and with market conditions. At the present time, fats and oils are a glut on the market. The price of beef tallow

and pork fat are today a nightmare to the packers. They make up a relatively small percentage of the total value of the carcass compared to a decade or so ago.

Lard today is worth about half the price of live hogs on a per pound basis. In fact, we have such a backlog of fats and oils on hand now that considerable emphasis is being devoted to finding ways of utilizing those fats and oils in livestock feeds.

It hardly makes sense that we would fatten cattle and hogs to a degree where these surplus fats become a burden on the market. It is expensive to both producer and consumer.

The only answer the writer can see is more emphasis on red meat and the revision of our breeding, feeding, and management program designed to produce more red meat at a lower cost.

Carcass studies on several hundred cattle of varying grades and breeds have clearly demonstrated that differences in carcass values and yields of various cuts, are much less than we have been led to believe by the appearance of the animals on foot.

In other words what might have been considered major differences in levelness of rump, thickness and fullness of round, or covering over the loin and rump are not nearly so evident in the carcass hanging on the rail.

This has been established as a proven fact rather than an opinion.

If this is true, it merely illustrates the fallacy of putting too much emphasis on minor details of our live animals at the expense of major considerations in the selection and breeding of animals best suited for conversion of roughages into meat rapidly and economically.

The profitable commercial feeder type calf or steer should possess the following characteristics: (1) Growthiness as indicated by size of bone and body framework, (2) A deep, roomy middle, (3) Good width over back and loin, (4) Good health as indicated by bright, clear eyes, soft skin, and a glossy hair-coat, (5) Possess a quiet and docile disposition. Good breeding, as indicated by color, a broad, short head, level rump, full, deep twist and quarter are also desirable, but secondary to the first five points mentioned.

The standard textbook description of the ideal steer as having a short head, short neck, short body and short legs has been overplayed. Short is a negative sort of term and if you keep making a thing shorter in all its dimensions, you may not have enough left. The fallacy of this short "selection" has been amply demonstrated.

If we can agree on the kind of steer most profitable in the

feedlot or on the range, we must provide the factory, namely the bull and cow herd, necessary to produce the desired end product.

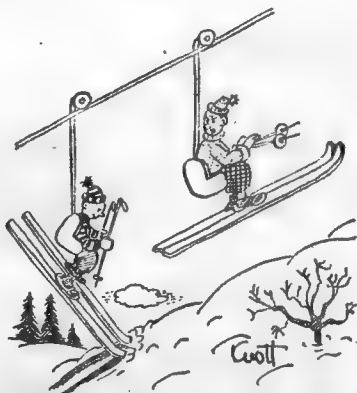
What has been said for the description of the good-doing kind of feeder steer applies equally well to the bull and the cow. There are no short cuts or magic formulae for selecting breeding stock. However, if we just bear in mind these few simple fundamentals necessary for a profitable operation without being misled by minor points or frills, the chances for success should be reasonably good.

One of the basic principles which we should insist on in the selection of bulls, particularly where heifer calves are kept for replacement is that the bull be out of a good producing cow and that she give enough milk to raise that calf to good weight at weaning time.

The best measure of the milking ability of a beef cow is the weight and condition of her calf at weaning time. She must raise her calf unassisted to provide that measure. Weight for age, growthiness, amount of bone, quality of skin and hair, natural fleshing or muscling, and disposition are all important. Too, we like a good beefy conformation, but let's don't overlook some of those basic points so commonly covered up with fat and with artificial feeding and management.

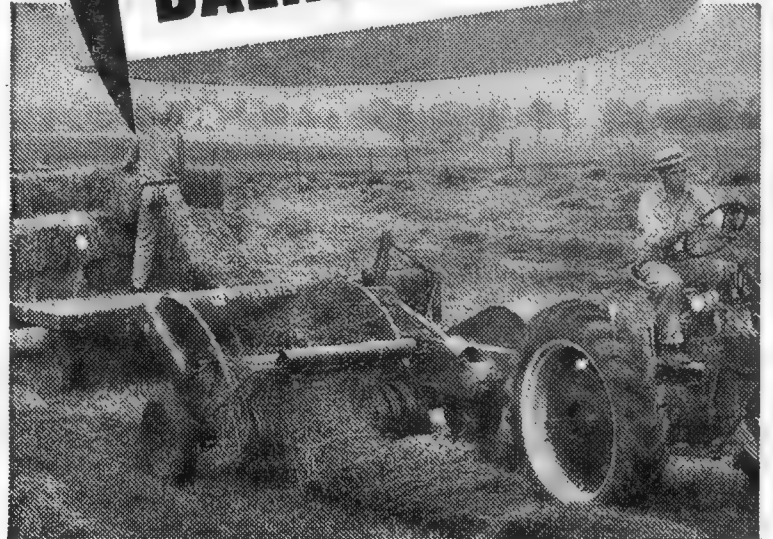
In the case of the cow herd, size and scale, weight for age and ruggedness are just as important as in the case of the bull. In addition, every cow should be on a production test and if she does not raise an acceptable calf at weaning age, she should be discarded. Regular breeding, sound udders, longevity and disposition are also factors to be considered.

There are no short cuts to success in the beef cattle business, but if we boil it down to its simplest form and don't lose sight of the basic principles necessary for success, it amounts to a selection program based on performance. A measure of performance requires a good set of records and a set of farm scales. Production records and the courage to use them as a guide to selection are the first requirements for a successful beef cattle enterprise.



"Junior! Stop dragging your feet."

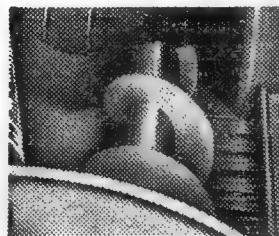
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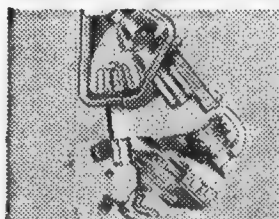
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ONE day last winter, Vandon Jopp, Hennepin County, Minnesota dairyman, looked at his cow "Lucky" and thought she was misnamed.

"Lucky" had freshened with one quarter of her udder plugged tight with mastitis. Within 24 hours the other three quarters were shut off with the infection. It looked as if neither the calf nor Mr. Jopp would ever get any more milk out of "Lucky". But five minutes after a veterinarian injected a water-clear fluid in her neck vein, milk began to drip from the cow's udder. Mr. Jopp milked out the thick, clotty mastitic milk. Then followed one treatment with an antibiotic carried into the udder in sterile water and "Lucky" was back on the production line.

The wonder-working injection which started milk flow was oxytocin, the "let-down hormone," used by veterinarians to start milk flow in newly farrowed sows. Normally, preparation for milking causes a cow to release oxytocin into her blood stream from her pituitary gland. Injected with a booster dose of this hormone, a cow really lets her milk down. The flow carries flaky, stringy, mastitic milk before it. The udder is opened up so any other treatment needed can reach the seat of infection readily. In some cases, no other treatment is needed. The cow has literally been "milked" of her mastitis.

This is a new approach to the treatment of mastitis. It is an

Here's a new approach to Mastitis treatment

(From the Farmers Digest)

approach that emphasizes finding the trouble early, stimulating milk flow in the infected quarter, and calling the veterinarian if frequent milking out fails to produce normal milk.

A veterinarian should give the booster doses of oxytocin, but you can speed milk flow with a warm water wash and massage.

What about antibiotics in ointment that you can buy and use yourself? They are best used as a preventive when an udder has been injured or following surgery on the udder.

The man behind this new approach to mastitis treatment is Dr. I. A. Schipper, a veterinarian and research fellow in dairy husbandry, University of Minnesota.

Dr. Schipper has used the "letdown" hormone on more than 100 cases of mastitis in the last 21 months. The flushing out was followed with an antibiotic in most cases, but about 15 of the mastitic udders have been returned to normal production by milking out only. The cows were in the dairy herd at University Farm, St. Paul, and in farmers' herds.

The advantage with the booster dose of oxytocin follow-

ed by an antibiotic treatment is that both veterinarian and farmer can go on to other jobs. When the antibiotic is in sterile water or other liquid, one treatment usually clears up the trouble.

Antibiotics in ointments do not penetrate the udder well enough to help much if milk is already abnormal, Dr. Schipper believes. He has studied mastitis treatments since 1950. At University Farm, antibiotic ointments used as recommended have given no better results than periodic milking out of the quarter. To test the penetration of antibiotics in various carriers, Dr. Schipper treated infected and normal udders of cows at a packing plant, using stained preparations. Then the cows were slaughtered at 12-hour intervals following treatment. Dr. Schipper froze the udders, sawed them open, and looked for the stained material. "The more severe the mastitis, the less the penetration of ointment," he reported. Some ointment reached the upper part of normal udders of cows slaughtered 32 hours after treatment.

There is another advantage to treating with an antibiotic in sterile water or other liquid carrier. The antibiotic disappears

sooner from the cow's milk. There's less chance of milk from the herd stopping action in the cheese vat at the creamery when the cow is put back into production. The University Farm creamery has been able to use milk for cheese after only one milking was discarded from a quarter treated with antibiotic in sterile water. When the antibiotic was carried in oil, three milkings had to be discarded. Some antibiotic remains in milk for as long as five milkings following treatment with an ointment. Pasteurization does not remove all the antibiotic from milk. Using the flush-out, water-borne antibiotic system for mastitis treatment also reduces the danger of anybody being sensitized to an antibiotic by getting small amounts of it in milk.

Veterinarians are finding oxytocin valuable in field treatments of mastitis. Dr. F. H. Bathke, McLeod County, Minn., used it last year in at least a dozen cases. Results were good where the farmer called him early, for newly-freshened cows, and where the quarter was hard and plugged up. Dr. D. E. Zinter, Hennepin County, has used the hormone for about six months on mastitic cows. "It really gets 'em flushed out in a hurry," he said.

Production from Alberta's 289,000 milk cows averaged 5,936 pounds of milk and 207.8 pounds of butterfat in 1953.



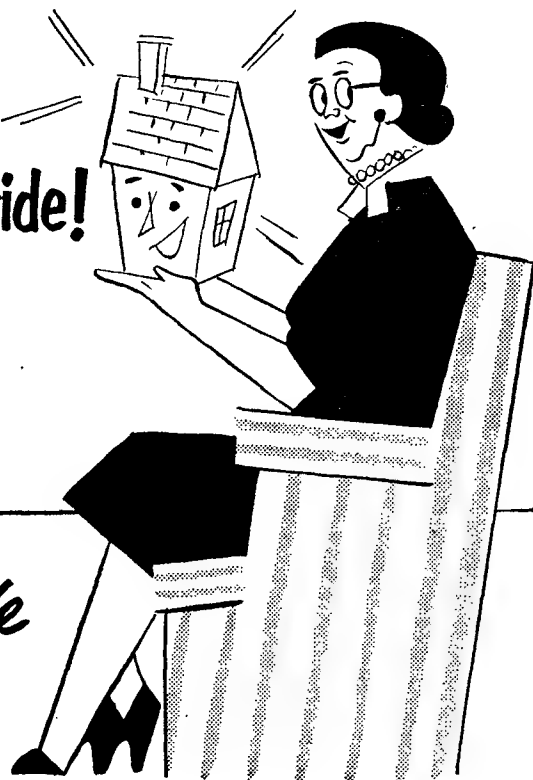
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New forage crop varieties

RECENTLY, two new forage crop varieties were placed on the market — one in the United States and one in Canada. We will likely be hearing a good deal about these new varieties in the next year or two, and it might be well to indicate where they could fit into our farming operations in Southern Alberta.

The new variety developed and licensed in Canada is a red clover named Lasalle. As the name suggests, it is best adapted to Eastern Canada where it was developed. Lasalle is what is called a double-cut clover and requires a long growing season for maximum forage yield. Because it is of this type, Lasalle will not yield as much forage in Southern Alberta as the recommended variety Altaswede. However, tests at the Lethbridge Experimental Station have shown Lasalle to be well adapted to this area as a seed producer. Southern Alberta might take advantage of this fact to grow seed of Lasalle for the Eastern market.

Vernal is the name of a new alfalfa variety developed at the University of Wisconsin. This variety has not been licensed in Canada, as trials with it have not been completed. It is not known, as yet, whether Vernal will be sufficiently winter-hardy for our conditions. If Vernal proves to be winter-hardy, it will be best adapted to irrigated areas. Tests have shown it to have a high degree of resistance to the disease, bacterial wilt, which has cost the irrigation farmer many thousands of dollars in reduced hay yields. However, for the present time at least, the variety Ladak will remain the standard recommended for Western Canada on both dry and irrigated land.

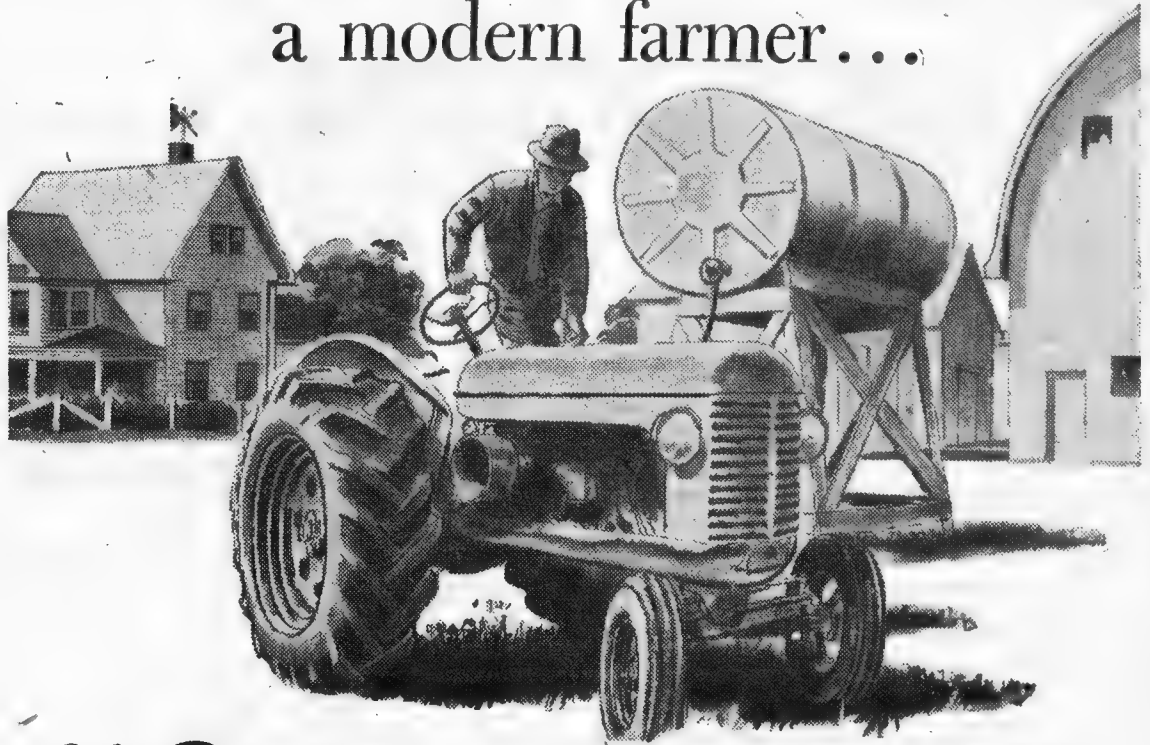
Hog Quality

J. G. Stothart, senior animal husbandman at the Lacombe experimental station, says there is little difference in feed consumption between the pig that takes 150 days to go to market and one that goes to market in 170-180 days. Very fast gaining pigs are too often over-finished and lack carcass quality.

Certain types of hogs do better on self-feeders than others and it is here that the short, thicker hogs lose out, said Mr. Stothart. They are the ones with the natural tendency to fattening which is encouraged by self-feeding. The lean type of hog does not fatten easily and is more suitable for self-feeding than the shorter, rounded type. The short, thick animals do not produce the lean bacon for which the public shows a greater preference.

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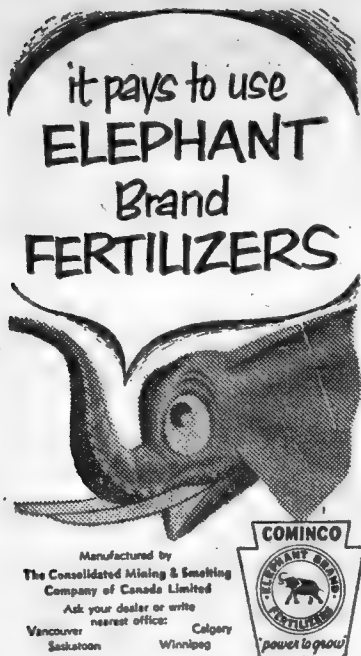
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Sifting the work of science service

By JOSEPH PAUL

CHECKING back a long way you will find the Dominion Department of Agriculture was building up a set of bulletins which formed a pretty good reference shelf for any farmer's library. There were some good big bulletins, well illustrated, broad enough in their scope to be practical.

The book on "Farm Weeds" was prepared in 1906 by Geo. H. Clark and James Fletcher, featuring the beautiful but honest color plates, hand painted by Norman Criddle. This fine book was revised and enlarged in 1909 and reprinted in 1923. Fortunately it is still available from the Queen's Printer at \$1.00. Let us hope it will never be replaced by a shabby and sensational modern treatment of the subject.

Formerly there were bulletins the size of books on beef cattle, horses, sheep, swine and poultry. One for each kind of livestock. There was a series of big bulletins on insects, vegetable insects, greenhouse insects, household insects, and parasites of livestock and poultry. The last two are still available, but most of the bulletins that were large enough to keep from getting lost, have long since gone out of print.

However, there is no shortage of grist for the press of the Queen's Printer. In fact, we are told that many publications have been on the waiting list for over a year. Leaflets, flimsy bulletins, articles for the press, and articles for scientific journals, are being dashed off at a rate never equalled in the history of mankind.

Take Science Service, for example, as the most active research service of the Federal Department of Agriculture. Pick up any of the annual reports of the director and you will find a careful listing of the material published by the staff. You will be astonished by the profusion of titles and the splitting of subjects into bits and pieces so that information may be presented in as many leaflets or articles as possible.

Don't blame the individual, he has to justify his salary, and he is caught in the mesh of a system. The point is that when one of these people gets a chance to apply for a promotion, he will be asked to list the scientific articles and bulletins he has written. The length of the list is the thing that counts.

It doesn't matter whether an entry covers an article on "The Arctic Lepidoptera of Baker Lake, N.W.T.", or the publication of a key to the insects of North America; it is worth just so many lines in a list; and just the same amount of prestige in the tribe. There are temporary twinges of conscience; but mostly these people become

hardened to the system. They realize it is better to spread their talents thin in the race for scientific authorship, than to remain forever in the director's dog-house.

One little group of scientists had reported their research on blackhead in turkeys in four separate parts in 1948, and by 1952 the series had been built up to part number 9. That was a pretty good effort, but no record.

You will note by the 1951 report, Studies in Pullorum Disease of Turkeys and Chickens had been split into parts published under separate numbers from 1 to 21.

But if you need a bulletin on poultry diseases, you are "out of luck" unless you can find a copy of the old one published by the University of Alberta in 1945; and, of course, you may refer to the brief but useful section in the Guide to Farm Practice in Saskatchewan.

As we noted before, Science Service has set itself the task of solving the "practical problems of agriculture through scientific investigation". Incidentally, the National Research Council and Agricultural Colleges from coast to coast had set themselves the same task many years earlier; but it may be that Science Service can do it better and faster.

"The Directory of Organization and Activities of the Department of Agriculture" shows how well we have manned this Service for the job. The Division of Botany and Plant Pathology for example, has 18 botanists at headquarters — not counting the even dozen of "mycologists" who concern themselves with the lower forms of plant life. This does not include the technicians and other help who do the routine work. Then there are a few more botanists and several dozen plant pathologists located at branch laboratories across the country.

These botanists have done field work from Newfoundland to Alaska. They have added to the sum total of human knowledge by writing such papers as:

"Notes on the occurrence of the Canadian tuckahoe";

"Plants from the upper Frobisher Bay region, Baffin Island";

"Vascular flora of the Melville Peninsula, Franklin District, N.W.T."

They have published an annual "Canadian Weed Survey", which is of limited value to botanists only, in spite of its practical looking title. And there have been other tidbits, written to help or impress fellow scientists.

But the Botany Division has not published one scrap of material to help the layman identify Canadian

plants in general, or to lessen the ever mounting confusion in the use of botanical names.

If you are interested in plant identification you can obtain the newly published, "Plants of the Farming and Ranching Areas of the Canadian Prairies," by A. C. Budd. This is available at the Dominion Experimental Station, Swift Current. It takes care of the needs of the amateur botanist in part of Western Canada.

Why wasn't the job done long ago by the Botany Division? Why is it still necessary in a work of this kind for a botanist to make excuses for the "confusion existing in botanical nomenclature"?

These questions could no doubt be answered differently by the Botany Division; but from here it seems hopeless to expect practical solutions to practical problems, unless they are tackled by someone who has initiative, freedom of action, and a broad understanding of all things related to his work.

(This is the second of four articles on Science Service.)

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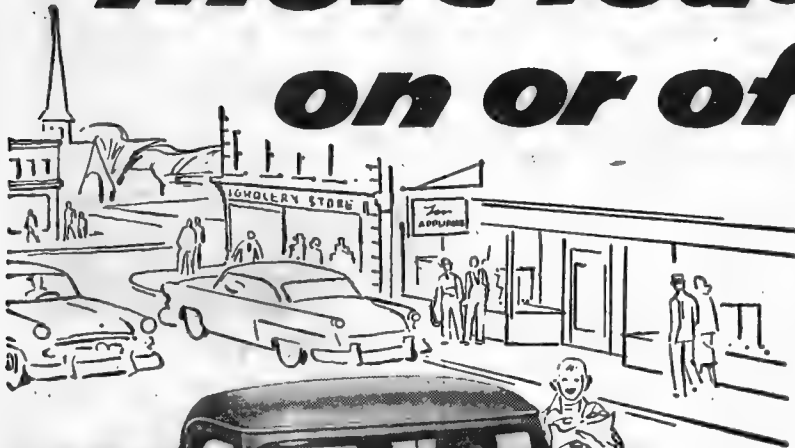
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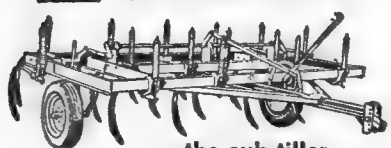
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What not to do when you drive a tractor

From the Nebraska Farmer
By DAN KITCHEN

THE rear wheels of the tractor were mired in slippery, wet mud. The drawbar had been removed. The operator chained a four by four to the wheels for home-made traction, and the stage was set.

The gearshift was moved to low, the throttle opened, and the clutch engaged. The tractor moved—but the big drive-wheels did not. Locked in the mud by the chain and timber they held while the chassis of the tractor turned about the axle. Rearing and falling back like a loco horse, the tractor pinned and crushed the luckless figure on the seat.

A tragedy? In this case, no. The operator so ruthlessly handled was Jughead, the straw-stuffed dummy fashioned by University of Nebraska Agricultural Engineers, the place the Ag. College campus, and the occasion the annual Farm Tractor Field Day.

First, the tractor was hitched properly to a heavy load. When the clutch was engaged, the wheels spun, the tractor bounced, but the load failed to move.

For a second attempt, Jughead hitched the same load, not to the drawbar, but to the axle of his tractor. When the clutch was engaged, the tractor reared—fell backward, pinning Jughead beneath. Lesson number one: Always hitch to the drawbar!

Jughead next tried to drive his tractor forward with the rear wheels in a 14-inch hole, simulating conditions encountered when the tractor is forced through ditches or deeply mired in soft ground. There was nothing hitched to the tractor. But when power was applied, the front wheels came up and over—and Jughead was underneath again. Also demonstrated was the folly of chaining a post to the drive wheel for positive traction. Lesson number two: Use care when crossing ditches or when your tractor is mired. Back your tractor out—or get help. Remember, too, that the rear wheels of a tractor left over-night in cold weather can freeze to wet ground, leading to the same danger.

Jughead represented a type of operator often encountered, always hurrying, never stopping to think, and failing to recognize danger until too late.

With little brother in his lap, Bozo zig-zagged, cut corners, and in general showed his ignorance of safe tractor operation. He ended his career by applying the inside wheel brakes on a fast turn. Over went the tractor, crushing Bozo and little brother. Applying a wheel brake with the power on not only stops that wheel, it doubles

the speed of the other wheel. This can be and often is fatal at road speeds. Lessons: Never carry extra riders. Horseplay has no place around tractors. Don't use individual wheel brakes at road speeds.

Jughead put in one last appearance, tipping his tractor sideways while turning at what he thought was moderate speed. The inside wheel struck a seven-inch block. Lesson: Slow down when going is rough or tall weeds and grass conceal obstructions.

Any 4-H tractor club member can tell you that a tractor is a dangerous vehicle for highway travel. Surprising enough, most highway tractor fatalities occur, not from collisions, but from overturning or falling off. (Of fourteen fatal tractor accidents on Nebraska roads in 1952, only one resulted from collision.) A high center of gravity, a short wheelbase, and no springs make a tractor as hard to handle at 15 miles per hour as a motorcar is at sixty. Let your good judgment tell you when to slow down.

To protect against collision, use a ten-foot pole with a red flag. This will aid in warning high speed traffic that a slow-moving vehicle is ahead of them. Never, never take an unlighted implement on the road at night. You have no right to commit murder in the process of suicide.

On the farm, steep slopes and creek banks take their toll. Try to arrange your fields to avoid these hazards. Remember that the power take-off and belt drive are dangerous. They should be shielded—then treated with respect. And never adjust clean, or oil a machine while it is running. Many operators do—and all too often, we see an empty sleeve as a result.

Be careful yourself—preach safety to your hired help and youngsters. When the latter are old enough and strong enough to handle a tractor, see to it that they are wise enough.



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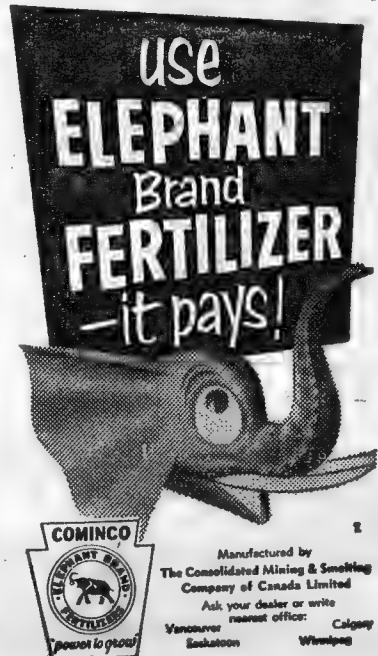
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1. Before attempting to handle the beast observe the general makeup. A fat beast should be square both in front and behind, and should present a side view which is as nearly as possible rectangular.

2. Stand immediately behind the animal, and feel the covering over the pin bones. The flesh should be firm with no indication of flabbiness. Look along the back bone, and note the spring of rib, and note that there is no depression behind the shoulders.

3. Step forward, and feel the

thickness of flesh over the loin. By placing the hands, one on either side, the width of loin may be ascertained.

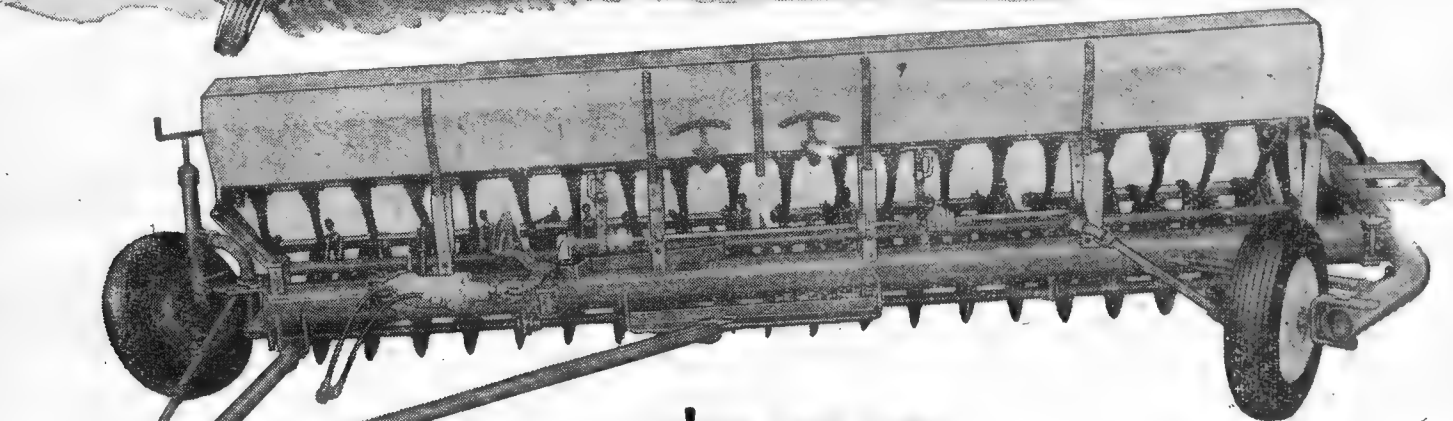
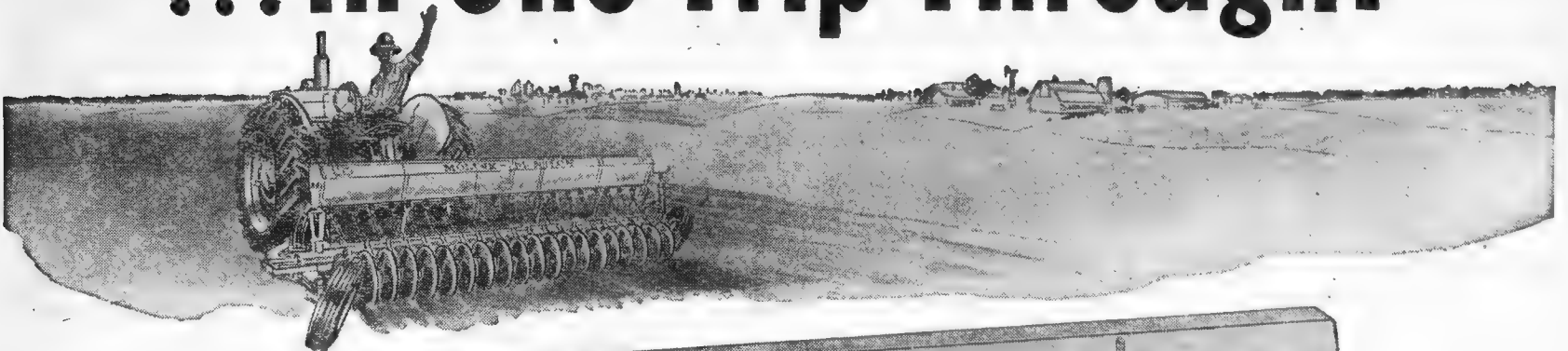
4. Feel the evenness and quality of meat over the ribs. This is done by the flat hand. The mellowness of the skin should also be tested.

5. With the fingers feel along

the top line, and note the width of the chine. The neck veins indicating fullness of the neck should be felt. The breast should be wide.

6. Step back to feel the flank. A thick well-fleshed flank is required. The thighs should be well developed as a good twist adds much to the weight.

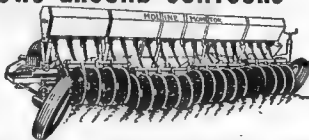
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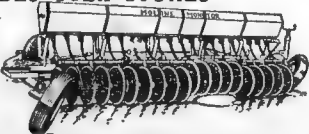
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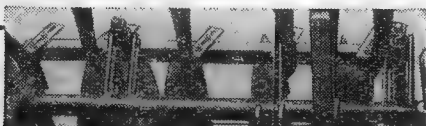
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Spring harvest of yellow gold

By TOM LEACH

AT this time of the year when most farmers are planning their spring work and counting the days until they can get out with the plow, the Daffodil growers on the west coast are harvesting the golden blossoms.

Some years they represent gold in more ways than color. If the Easter season happens to arrive at a favorable moment for the grower he may sell as many as 10,000 blooms from one acre for as much as 25c a dozen. But if Easter is early and the season late he may find himself with a magnificent field of Daffodils waving their brightness in the breeze and not worth the cost of harvest.

That has happened to Vancouver Island growers but not as frequently as it does to those located in the Fraser Valley where spring temperatures do not warm up so quickly. Records over the past 32 years show that on an average the latest spring frost will occur about March 4th. Some years they have recorded no frost in the spring but in late seasons the cold nights have persisted as late as April 8th. Those rare occasions at Victoria will delay blooms beyond the critical market date.

No spot in the Fraser Valley is treated so well by the spring weather. Frosts are frequently registered in the early part of April and have been known to linger until May. So the growers do not depend so much on cut bloom as they do on bulb production itself for their bread and butter. But they still enjoy the color of the Daffodils which spring out of the ground as soon as the first rays of the spring sun strike their hiding place.

Seeing some of the acres of bulbs planted in the fall and then watching them stretch their green stems upward in the spring and gradually open, the colorful blossoms provides you with the reason the Daffodil is an inspiration to poets and writers.

The Daffodil is in itself spring sunshine and lends beauty to the gardens weary from winter rains and snow.

How or when the first Daffodils were brought to British Columbia or the time of the first commercial planting is not told by the history books, but someone who enjoyed their beauty in England no doubt found a corner in his trunk to tuck away a few bulbs which were planted when he landed at the south-eastern tip of Vancouver Island.

Under the climatic conditions like those of Europe where the species originated, they contin-

ued to thrive and by 1929 the B.C. Department of Agriculture completed a survey which showed they had multiplied well. By that time over 150 acres were planted and producing bulbs for the gardeners and greenhouse operators.

How they came to the Fraser Valley is another story. Fenwick Fatkin who was a florist in Vancouver had been commissioned by a real-estate firm to investigate some property near Bradner, B.C. Since it was a nice day he decided to take his wife and baby for the trip.

They arrived at Bradner and stepped down from the train to find only a flag stop and a wait of several hours before the returning train could take them back to Vancouver.

They walked along the tracks until they found the property which he was to appraise, located a comfortable spot for their picnic lunch and settled down to enjoy a pleasant afternoon. It didn't last long. The baby wanted feeding and Mr. Fatkin set off for the nearest farm to get milk.

Milk Search.

Time passed as he trudged through the heavy timber for a long distance before he came upon a farm yard. More time passed as the widow who ran the farm hunted high and low for the cow to get the milk. But while she was searching for the cow he found something which meant far more to him. It was a clump of the tallest, healthiest appearing Daffodils he had ever seen.

He was too engrossed in this discovery to even notice the lady come back with the milk. He dug into the soil and liked the feel of it. When he did see her it was not with the thought of milk but of Daffodils.

He wanted to know where the bulbs had come from. When they were planted and when they bloomed in the spring. He asked a million questions until suddenly he realized that it was almost train time. He rushed back to his wife, almost forgetting the milk, in his eagerness to tell her they would soon be moving to Bradner.

During his absence she had noticed what she thought was a mother bear and her cub. But Mr. Fatkin allayed her fears, assuring her that it must have been the two dogs from the farm. "If she had known they were really bears I would never have raised bulbs at Bradner," he says.

A year later the first "acreage" of bulbs blossomed in the Bradner district.

In the ten years between 1929 and 1939 the acreage of Narcissi, which is the proper name of the Daffodil family, almost doubled. The acreage in 1949 was almost 3 times the area planted in bulbs the first time the crop was surveyed. But by that time growers were finding that bulb growing like every other farm enterprise is fraught with certain troubles.

Disease and insects began to creep in and took their toll of yields. Plantings were beginning to wear out. They agreed there was need for some means of rejuvenation.

A plan was undertaken in 1942 to inspect the plantings. The growers culled seed stock more closely and discarded bulbs that did not meet standards which promised to give better yields. They treated their bulbs against the Narcissus bulb fly. They undertook to rotate the crop, providing new soil and adopted a fertilizer program.

Crop Loss

Daffodils were found to suffer from a disease known as smoulder. It did not cause much harm the first year and growers were inclined to ignore it. But they found the crop had been damaged to a greater extent the following year and by the third season more than 30% of the bulbs were infected. Disease crept up slowly and nearly engulfed some growers before they undertook to fight the problem.

Today all of the larger plantings are under inspection and the growers know how to handle their bulbs. They grade according to provincial standards and are providing the eastern Canadian greenhouses with the large bulbs for forcing.

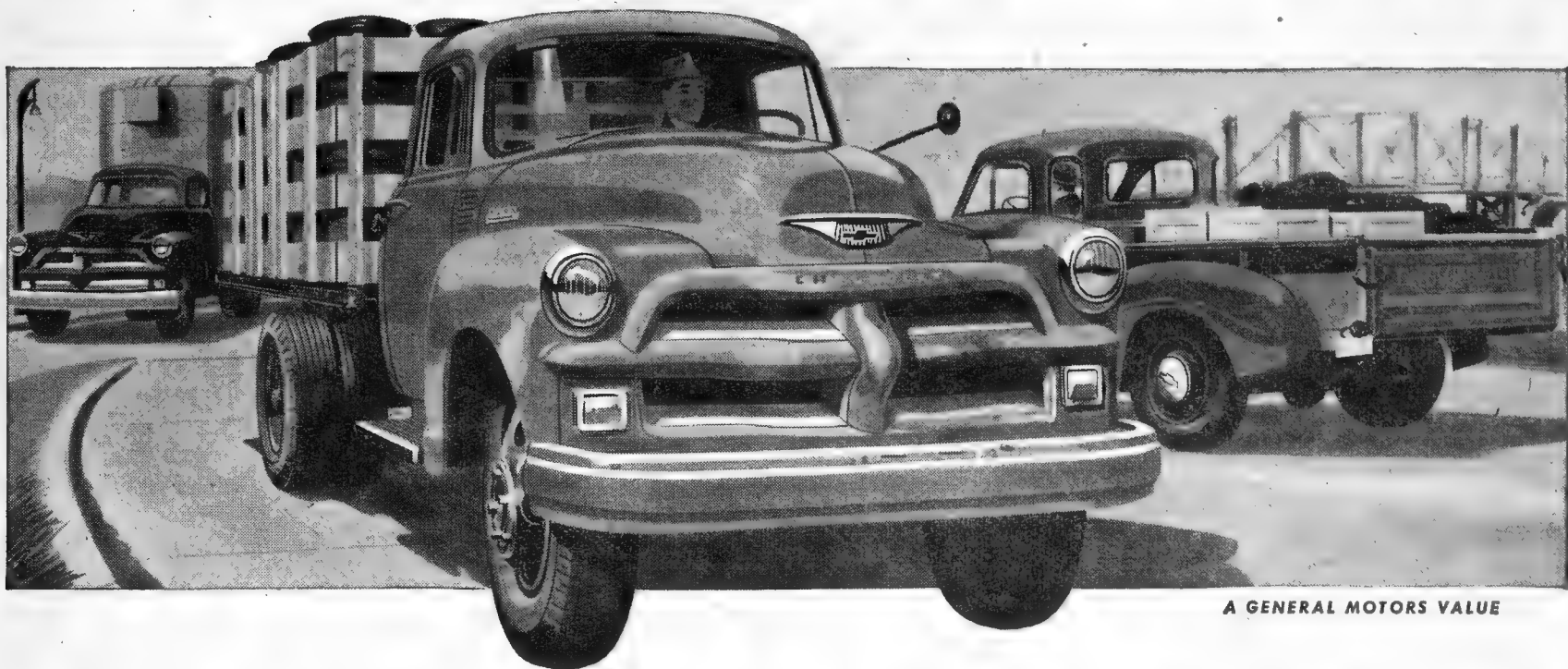
But even with ten million or so bulbs planted they are only skimming the surface of a market which requires 11 times the number of bulbs they will have for sale.

Some of course are not concerned with the bulb market. They have found a new and expanding market on the prairies for the golden blooms which open on Vancouver Island several weeks before the danger of frost is gone in most other parts of Canada.

Already this year hundreds of boxes of half-opened blooms have been carefully wrapped in special paper and sent on a fast air-trip to the larger centers in Alberta, Saskatchewan and Manitoba. Not many go farther east because of the cost of shipping.

But cutting, wrapping and packaging will speed up quickly as Easter approaches. Two weeks before Easter is the peak of the shipping season and when the day comes as it does this year, not too early for the Daffodils to absorb a little spring sunshine, they will spread their golden glow in more ways than one.

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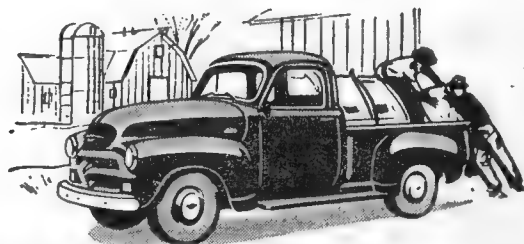


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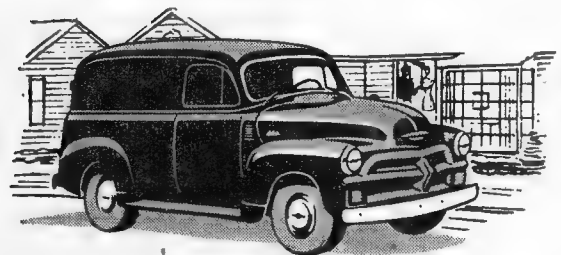
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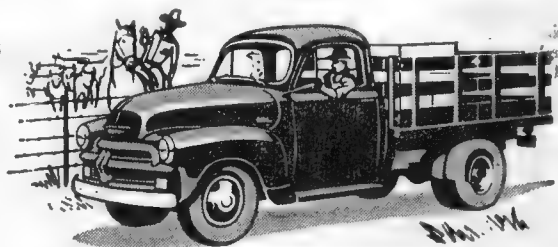


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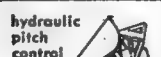
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Saving labor and protein by using salt controler

SOUTHWESTERN stockmen may have found the answer to more efficient feeding practices to give the runt of the herd a break, cut labor costs and result in more equitable use of grazing land.

Culminating five years of experiments started in 1948, Dr. D. A. Savage, USDA Southern Great Plains Field Station, Woodward, Oklahoma, reported use of salt as a regulator in protein meal supplement feeding. The Salt Institute, co-sponsors of the experiments, revealed the findings today.

Dr. Savage's method mixes sufficient loose salt with meal or grain supplements to govern daily consumption by beef cattle, breeding cows and sheep.

The stockman determines the amount of supplement to be consumed daily, and mixes it with from one-half to a pound of salt for every two pounds of meal, depending on the animal's weight. Animals will not take more salt than needed, will stop eating the salt-meal supplement mix when satiated with the salt.

Several advantages were cited by Dr. Savage:

1. Supplement rations can be put out weekly, instead of daily, with a saving in time and labor costs, particularly in reaching inaccessible areas of the range.

2. After larger, more vigorous animals have had their daily fill of salt-meal or salt-grain supplements, they move on to other grazing, leaving plenty of the ration on hand for the smaller, weaker animal.

3. By controlling the daily supplement intake with salt, an animal will not over-eat protein to its detriment. Excess salt passes quickly through the animal with no ill effects.

4. Placement of supplement feeding bunks at various locations means more efficient utilization of grazing land. Experiments show that the bunks can be placed considerable distances from water, to encourage animals to graze equally over the entire range.

To restrict daily winter supplement consumption to two pounds, Dr. Savage found meal should be mixed with No. 4 crushed salt as follows:

One-half pound salt for 400-pound weaner calf; seven-eighths pound salt for 700-pound steer. Larger animals require more salt, and it is advisable to increase salt to one pound for every two pounds of meal as the feeding season progresses. Similar results were obtained with breeding cows.

Dr. Savage cautioned that "these results indicate simultaneous self-feeding of salt-meal mixes to radically different weight classes of cattle should be avoided if uniform meal consumption is desired for all animals."

Dr. Savage found that less salt is required to regulate daily consumption during the summer. Yearling steers required seven-eighths pound of salt in winter but only one-half pound of salt in summer. He explained that cattle generally need more minerals in winter.

In relation to forage, Dr. Savage said that more salt is needed to govern self consumption of meal on heavily grazed pastures than on conservatively grazed areas. Likewise, more salt is needed when pastures are grazed continuously at moderate rates than where grazing has been deferred during the previous growing season.

Do Good

Salt-meal feeding on the range had no ill effect on subsequent gains of feed-lot cattle. Cattle placed on full feed rations in the standard feed-lot manner, after having been on a range supplement of salt and meal for 150 days during the preceding winter and for 90 days in late summer, showed no difference in feed-lot gains when compared with similar cattle that had been pellet fed on the range, Dr. Savage said.

A reduction in weight gain during the winter was noted in early experiments with the salt-meal mixes, but this was attributed to cattle drinking large amounts of cold water. When warm water was fed, weight gains were equal to or better than comparable cattle on the pellet mixes.

It is essential, he emphasized, that bunk space be adequate for half the herd to eat at one time. Restricted feeding area requires longer periods of feeding for the herd, with extra weight-consuming energy expended in the effort.

Grazing distribution is achieved by placing bunks away from water, as much as a half-mile or more is not detrimental. Weight gains, winter and summer, were the same with herds

fed near and far away from water.

"Self-feeding of salt-meal or salt-meal-grain mixtures to cattle on western rangelands has many advantages and few limitations," said Dr. Savage. "It is particularly advantageous in large, rough or heavily wooded areas where cattle cannot be gathered easily or where labor is scarce, high priced and un dependable."

"This practice enables all cattle to consume their daily quota of concentrates without disturbances when ample bunk space is available. The mixture is also helpful in training calves to eat protein supplements for the first time. The method also reduces the tendency of vigorous animals to eat at the expense of weaker animals. The runt animal will find its share waiting after the others have had their fill of the salt-meal mixture for the day."

Since 1948

The range feeding trials have been conducted with steers throughout the period from 1948 to present, and also with breeding cows during the past two years. All cattle were of commercial grade herds of uniform breeding and grazing background.

Cottonseed pellets or meal, containing 41 per cent crude protein, were used in all tests. Adjustments were made in the proportion of salt to meal so that all cattle in any given comparison received the same amount of meal or its equivalent in pellets during the first four years, to assure accuracy of the feeding method comparisons.

After this period, the tests were conducted to determine consumption and performance with only enough adjustments in the mixtures to coincide with increasing salt-tolerance developed by the cattle.

The pellets were fed in open bunks, the salt-meal mixtures in special bunks with roofed tops and walled backs and sides to eliminate wastage from wind or rain. The cattle were under constant surveillance, and painstaking records were kept.

Ratio of salt to meal supplement consumption, by weight of animal, to feed two pounds of concentrate daily in winter and one pound daily in summer:

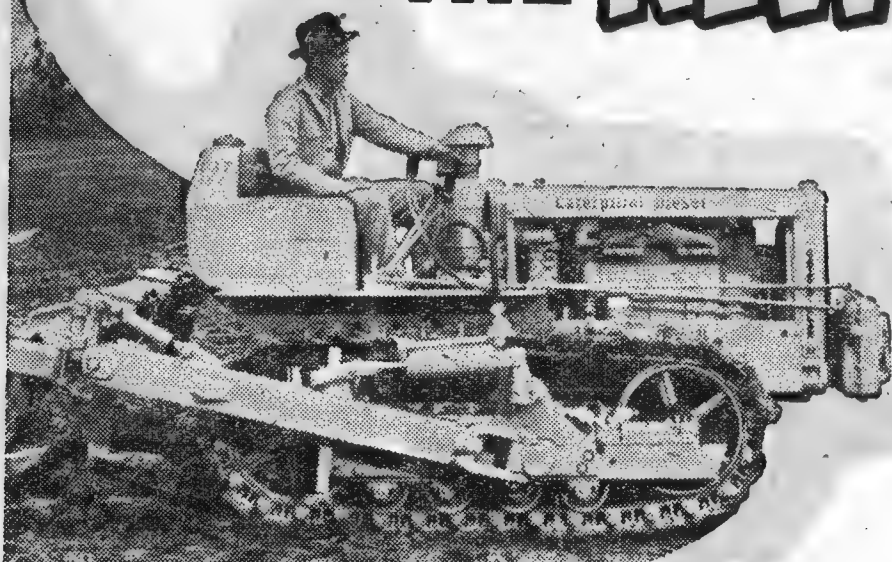
Salt Required with
Daily Ration of Supplement
(No. 4 Crushed Salt)

	WINTER (2 lbs. meal)	SUMMER (1 lb. meal)
400 lb. Weaner calf	½ lb.
500 lb. steer	¾ lb.	1/3 lb.
700 lb. steer	1 lb.	½ lb.
Heavy weight breeding cows	1 lb.	¾ lb.

Heavier weight beef cattle and breeding cows need proportionate increases in salt in ratio to above table. Slight increases in salt required as feeding progresses, and animals develop salt tolerances. More salt also is required on heavily grazed pastures.

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A Little Wheat— A Little Chaff

By IVAN HELMER

NOTE FOR PROVINCIAL LIQUOR BOARDS: During the recent German cold spell, so many water-pipes of a small community in the hills of Hesse burst, that the water supply was completely stopped. The wells were frozen, too, so that every drop of water had to be fetched from a place two kilometers off. Driven by such dire need, a number of citizens declared that they were prepared to barter wine for water at a rate of one to one.

Talking about automobiles, a writer in one of our trade magazines has what seems like a good common sense idea. Before we can cut down on automobile disasters, he thinks, we will have to start treating irresponsible drivers as social outcasts. Snub them the same as we would any other obnoxious character. It is up to those who try to drive sanely and considerately to let these people know that they are highly disapproved of. So, when some one tells us they drove in from so-and-so, "200 miles in 3 hours", or "drove right across the city through all that traffic in only 20 minutes", instead of smiling our ad-

miration and saying, "Boy — that's drifting!", we had better start saying something like: "No wonder so many innocent people are killed and crippled every year with asses like you behind a wheel!"

In picking a husband it's only natural that most women prefer a man they can Bank on.

Progress is being made despite the misgivings of many people. Authorities report that where Television goes in, many teen-agers, and even adults, are turning from comic books to T.V. And T.V. is felt by some experts to be a step up.

Wonder if some of the decrease in Dairy herds isn't due to the growing popularity of Curling? Who wants to keep rushing home from Bonspiels to milk cows?

All a Soviet diplomat seems to need is plenty of No-how.

Too many young people, nowadays,

think that all they have to do to "go places" is to pack a couple of suit-cases.

There is a rumor about that Molotov, or somebody, is demanding that the members of the Russian hockey team, which last month defeated Canada, be hung in Canada's Hockey Hall of Fame. Well, what is wrong with that — as far as we are concerned one place would be as good as another.

Any amateur gardener of any experience knows that the best time to thin a garden is when he is buying the seeds.

This may be the age of plenty, but you still can't live on beefsteak unless you bring home the bacon.

A father who has just married off his fourth daughter tells us this expression of the old man "giving" the bride away is pretty ironical.

In the United Kingdom news is Mr. Ernest Prosser, who works at a garment factory in Walkden, Lancashire. His union there (Tailors' and Garment Workers) punished him with an official rebuke and a \$1.50 fine for cutting 48 suits in one week — two more than the maximum number it permits.

Some people just won't co-operate!

Times are really changing. They used to just hang horse thieves without any argument. Nowadays a man can steal a car, run over somebody, and find himself in trouble for not having a driver's license.

We heard about a small girl, 5 years or so, who, with her mother was visiting friends out here. The friends insisted on taking them to see our mountains and one of our National Parks. So they went. We don't know whether the child could read, or whether it was just female intuition, but when they stopped the car to register at the Park Gate she was well aware that there was a powder room somewhere, and like all kiddies she had "to go". It happened to be a busy time of the day and there was some queuing-up to be done. Among the strange females in the place one decided to strike up a conversation. Something like this: "My, what a pretty dress, my dear — and where are you from?" "I'm from Montreal," the girl said. "Oh," the lady exclaimed, "what a long way off — are you on your holidays?" "Yes," the child said. "And where are you going?" the kind female wanted to know. "I'm going to the bathroom," the little girl answered impatiently, "where are you going?"

Well — whatever you are doing, don't get ulcers over it. Remember, you can't take it with you even if the government would let you have it while you're here. All "jack" and no play makes Abbott a happy boy today.

MANY ranches now make weaner calves their principal source of income, therefore it is economically necessary to keep calving losses at a minimum.

Here are a few suggestions, some of which can be applied now and others of which should be kept in mind in planning future calf crops.

(1) Observe the herd closely during the calving season and be prepared to assist in cases of difficult or abnormal parturition. This may not always be easy on the large ranch, but pregnant two-year-old heifers must be kept in a separate field close to headquarters and watched carefully during the calving season.

(2) The normal presentations at birth are: (a) the front feet and head of the calf appear first, and, less frequently, (b) the hind feet and tail appear first. Occasionally the cow's pelvis is not large enough to permit passage of the calf's shoulders or pelvis, and traction may have to be exerted. When progress in the delivery has been arrested, this action may be deemed necessary. The force should be applied downward to conform to the natural curve of the birth canal. In the front presentation, forcible traction should be applied on one limb of the calf first to permit one shoulder to pass through before the other. In the hind presentation, one hip of the calf should be repelled as far as possible in

How to reduce calving losses

By H. F. PETERS,

Superintendent, Canada Range Experiment Station, Manyberries, Alberta

the genital passage while traction is exerted on the calf's opposite limb.

(3) In abnormal presentations, the faulty condition has to be corrected before birth can take place. One fore limb may be doubled back and it is necessary to pull it forward to the normal position. The front feet may appear but the head is doubled back. In this instance the head must be brought to its proper position between the knees. Sometimes the rump will appear but the hind legs are doubled back, and it may be necessary to amputate one or both legs to remove the calf.

To correct abnormal positions of the calf, its body must in most instances be repelled in the genital passage to some extent. This is difficult because of the pressure exerted against the calf by the cow. To reduce this pressure a spinal anaesthetic can be given by injection. A veterinarian should be consulted for selection of the anaesthetic and method of use. This technique has been used successfully at the Range Experi-

ment Station, Manyberries, Alberta.

In all cases where assistance is being given, the external genitals of the cow should be washed with a warm antiseptic solution and the hands and arms of the operator should be scrubbed with a germicidal soap solution.

(4) Provide shelter for early calving as a precaution against losses in spring storms. April storms have occurred in four of the last twenty-five years at the Manyberries Station. Many ranchers have reported that

early calving is preferred because the calves are then large enough to take the heavy milk flow when green grass appears.

(5) Vaccinate heifer calves each year for Bang's disease to build up a herd free of this disease. If early abortions occur in a Bang's free herd, consult a veterinarian for the possibility of trichomoniasis infection.

(6) Assure against vitamin A deficiency in the pregnant cow by feeding some green hay during the winter. A deficiency of vitamin A may result in abortion or birth of dead or weak calves.

(7) Provide iodized salt for cows during the last five months of pregnancy if the district is suspected of having an iodine deficiency. No deficiency has been demonstrated at Manyberries, but it is known to exist in other parts of the western range area. Deficiency of iodine results in production of dead or weak goitrous calves.

(8) Maintain the cow herd in strong condition by adequate feeding, especially during the last third of pregnancy, to assure the birth of vigorous calves. Pelleted concentrates are now becoming popular for range feeding.

(9) If yearling heifers are to be bred on the ranch, it is essential to feed for continuous growth during their first two years. This is now a regular practice at the Manyberries Station.



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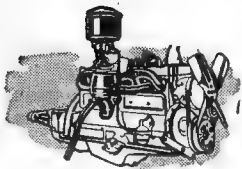
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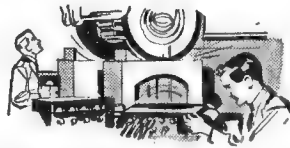
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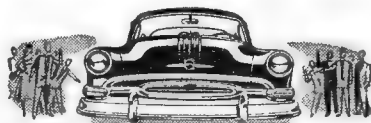
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Blast From Labor

To the Editor:

IN view of the editorial tone of the Review in the past, it was not surprising to see disapproval expressed in your columns over the recent organization of the Canadian Farmer-Labor Economic Council. But it should not, surely, have been necessary, to rely upon prejudice and counterfeit economics to justify that bias.

You repeat the old siren song of the Canadian Manufacturers' Association, that "high wages have caused high prices for the farmer," and you cite farm implement prices — admittedly, far too high — as an example of your contention. Why do

you not tell your readers that gross operating profits of the farm implement industry leaped by 338½% between 1945 and 1950; that, (excluding freight), distribution costs absorb \$25.00 of every \$100.00 spent in farm machinery by the farmer and that this last cost is probably higher than the whole labor cost at the factory.

Back in 1946, before living costs

jumped, the average worker in the farm implement industry earned \$1,735.00, while producing a goods value at the factory of \$5,476.00. In 1951, he earned \$2,947.00, but produced \$12,159.00 in the same terms. But the gains in productivity had not been passed on to the farmer. The Ottawa Inquiry of 1936-37 said that from 1891 to 1936 retail prices of

farm machinery were at "too high a level, as shown by the financial returns of the industry."

The Select Committee of the Sask. Legislature, in 1952, in an important report on Farm Implements, unanimously presented, came to the same conclusion, that "the companies have made very high profits and present high prices of farm implements are probably a direct outcome of this condition."

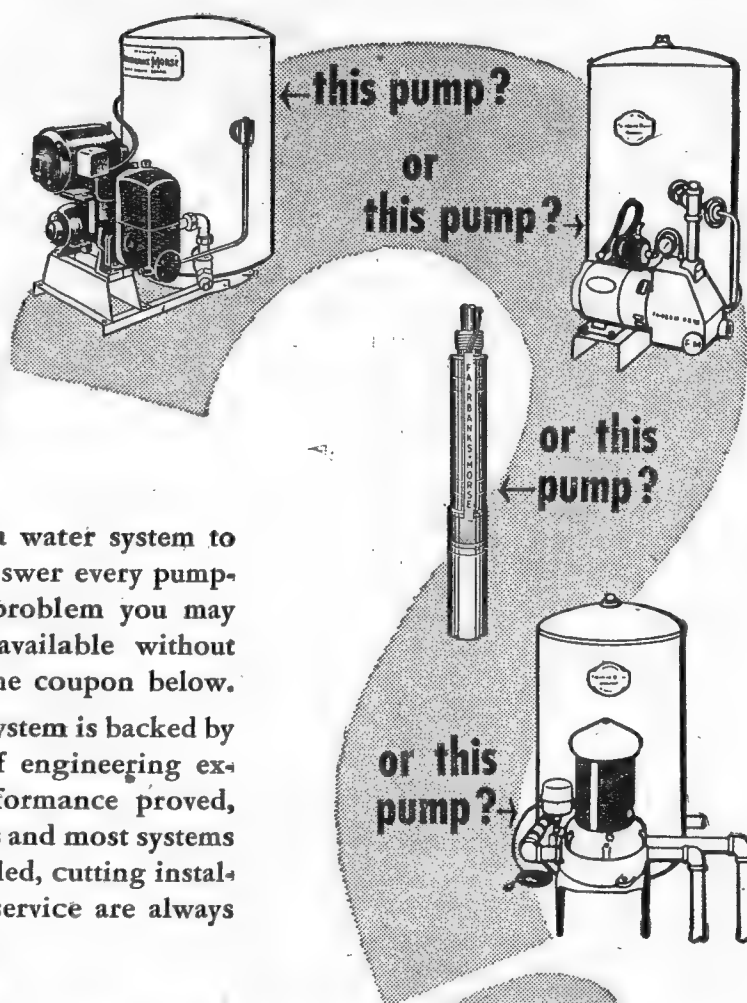
It is just as important to the worker to maintain farm purchasing power as it is for the farmer to maintain workers' purchasing power. There was never a depression in Canada which did not hit farmer and labor sections alike. The all-engrossing problem for both farm and labor is to hold a joint purchasing power to maintain a common security. Farm and labor papers might well see, in the creation of a national consultative committee between farm and labor forces, a historic development; even if their editors held judgment in reserve, which would be normal enough. But the all-out onslaught of the Review merely confirms the approach of monopoly interests in Canada who have sought for many, many years to keep the basic sections apart for their monopoly security.

How high are wages, Mr. Editor? The 1951 Census gave us some valid and interesting information. 75% of 2 million wage and salary earners in Canada had incomes of less than \$3,000. Of these families, 25% received between \$2,000 and \$2,500 per year. Another 22½% earned from \$1,000 to \$2,000 annually. 137,000 families in the whole group reported earnings of less than \$1,000. Now, let's look at production of workers in industry. According to the Royal Bank Letter of July, 1953, production per worker was as follows: 1926, \$5,545; 1946, \$7,594; 1951, \$13,043. Look at the last figure and then look at the wages of most workers in 1951; they tell their own story.

Neither Mr. Phelps, or any other farm or labor leader seeking to promote better relationships and common viewpoints in Canada — surely, a fine way to help national unity — should be criticized for venturing to explore avenues to common security and understanding. When you strip down everything you have said, Mr. Editor, you call for more misunderstanding, more disunity, greater discord, to what end? That while labor and farmer fight, their problems remain unsolved? That would be a hopeless, futile thing.

W. G. Davies, Executive Secretary, Sask. Federation of Labor, C.I.L.

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Change School terms

To the Editor:

EDUCATIONAL costs seem to be increasing, and I maintain that teachers' salaries could be increased if the revenue now collected were spent differently.

1. Teacher and pupil accommodation could be improved and expenses, etc., getting to and from schools and teacherages on week-ends, especially in rural areas, could be reduced.

2. One hour's education in long Spring and Summer days should be more beneficial than, say, two hours in cold wintry weather. Perhaps one additional hour's teaching each day or an 8-hour day should be considered by teachers and school officials, for the teaching of higher grades only, thus giving teachers a chance to earn 40 hours' pay in a week at approximately the same expense, which the teachers now bear on a 30-hour week.

3. Thousands of dollars could be saved if extra snow plowing were not

required for school buses, as well as extra heating of buses in winter. Furthermore, if teachers and school officials considered an 8-hour day in long Spring and Summer months only, an additional saving would result on bus mileage. Our present 6-hour day for 4 months amounts to approximately 480 hours, and if the 8-hour day were adopted a school bus would cover exactly the same amount of mileage in three months to give the children the same 480 hours of teaching.

To sum up, I ask your careful consideration for these suggestions: That the summer school holiday be July only, as that seems to be the main month for entertainment, that the winter school holiday start at usual Christmas holiday time but continue till the end of the following March.

Henry Kelley,

Millet, Alberta.

Why They Leave Home

To the Editor:

Do we wonder why so many of our young people are leaving the farm for employment with the oil companies and other urban occupations?

Two of our farm families left last year, two more are going this spring.

It is no longer profitable for the small farmer to operate his own farm at the present price of farm mechanization.

The uncertainty of prices for his produce is another factor. Farm prices are always the first to drop in a depression. If he wishes to provide his family with modern utilities, he has to help build a power line to his door instead of merely paying for the power as he uses it like his city fellows. He can mortgage his property with a long-term loan to do this, but most farmers are reluctant to do so.

Our schools, which patterned our way of life, have moved to town. Most of our community life went with them. The children become active in sports, clubs and school unions, all tending to take them away from farm activities.

The youth of today are demanding a higher standard of living in every way, shorter working hours, workmen's compensation, etc.

The farm cannot afford it. The city offers it, so they go.—(Mrs.) Margherita J. Durling.

Westlock, Alta.

Education — Then and Now!

To the Editor:

The critics in your January issue who take exception to your editorial on Prof. Neatly's book, "So Little for the Mind", appear a little confused as between "sociologists" and "socialists".

However, I want to say how very much I agree with what you said.

I came to the west as a boy of 16 (from England), forty years ago, and have travelled very widely all over the west. I have had several years of lecturing in rural schools, as well as other intimate connections with matters educational.

Looking back over the years, I must say I have seen a steady decline in general discipline, sense of values and ordinary, every-day knowledge.

I have met school teachers who had never read a book. I mean — a whole book. They have, of course, used their text books, read the digests, and the "funnies" (so-called), but have never waded right through one of the classics or near classics.

I have met dozens who had heard of Jean Valjean, Jim Hawkins, Mr. Micarober, Dr. David Livingston, Plato, etc., etc. I have met few who had really read "Les Miserables", "Treasure Island", "David Copperfield", "Kidnapped", "Livingston's Journal", "The Republic," etc., etc.

As for history and geography — the ignorance is quite appalling. No wonder when a young American at Fort St. John, during the building of the highway, stated that the British Parliament was patterned after the U.S. Congress there was no one to doubt his word!

I can remember my chums of World War I (Canadian Army), who had come from rural schools, being able to recite Scott's "Lay of the Last Minstrel". I can remember that their general knowledge was far ahead of their counterparts of today.

And what are we spending? Thousands of dollars where it was hundreds.

Our high school girls have to cook \$1.50 steaks which the taxpayer pays for in a kitchen that looks like the chef's quarters at the Ritz. These are ordinary farm girls who could learn to cook just as well from their mothers. As far as I can see we are wasting our money and turning out a trashy article.

A young man with a degree from the U. of B.C. recently tried to convert me to socialism. His chief argument seemed to be that the working man in England had such a hell of a time of it for a few vague hundred years that he finally revolted and won for himself reforms, and now they (the workers) know their power and there'll be no stopping them. Utopia in sight, etc., etc.

I found out in the course of conversation that he was not familiar with Chaucer, Shakespeare or any of the writers of the times he spoke of. Nor was he in any happier position in regards to contemporary literature of any later period — including the important industrial revolution.

The mere statement in some book on social history to the effect that a farm laborer in 1565 received 2 pennies a day as wages was enough for him to class them all as little better than slaves.

Had he — as one must to arrive at a proper picture of any remote times — read the literature of the period, he would have found that this 2-pence-a-day man was probably supremely happy.

Secondly, I found that he had made no study of parliamentary history; therefore, he could not possibly know that 90% of the bills which improved the conditions of working men, were the brain children of the well-to-do with a conscience.

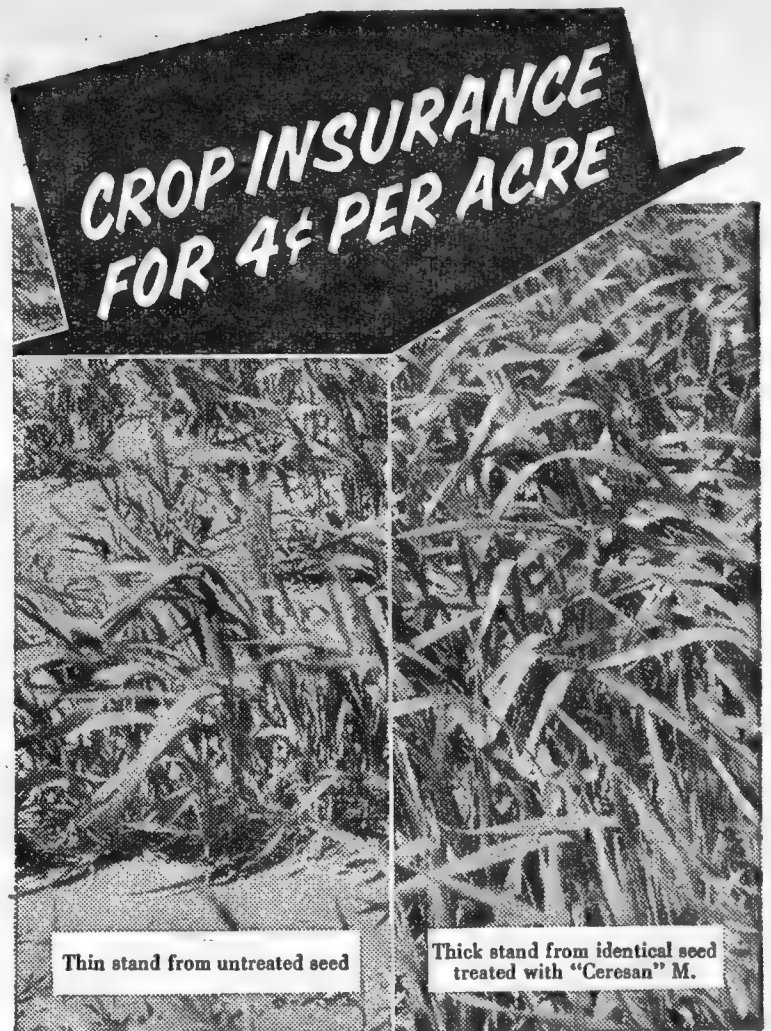
The first bill to shorten working hours in the cotton mills was put forward by one of the biggest cotton manufacturers in England.

The working man of today is certainly most ungrateful. And so my young U. of B.C. friend was quite frankly talking pure rubbish. As an incident, it's hardly worth noting, but unfortunately I find this young man in almost every restaurant, train and bus, and the harm he does is considerable. A thorough grounding in history would have nipped this in the bud.

Thank you for your editorial, and thanks to Prof. Neatly for voicing the thoughts of thousands.

R. D. Symons.

Fort St. John, B.C.



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Good weather or bad, "Ceresan" M guards every kernel you plant against seed rot, and protects the young sprouts from seedling blight. That's why you'll see thicker, stronger stands that promise top yield—often up to seven extra bushels per acre.

YOU CAN SMELL THE DIFFERENCE!

"Ceresan" M seed disinfectant gives every kernel a protective coat that kills disease spores on the seed. In addition, "Ceresan" M slowly releases a disease-killing vapor that spreads throughout bag or bin. The distinctive smell of "Ceresan" M on seed tells you that "Ceresan" M is at work disinfecting your seed for bigger yields and higher grades.

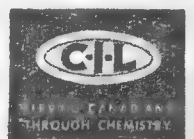
RECORD OF SUPERIOR PERFORMANCE

For over 19 years "Ceresan" M has been giving superior disease protection to seed grain. Agricultural tests year after year affirm its superior effectiveness as a seed disinfectant for grain crops in Western Canada.

You have a large investment of labour, tillage in your grain crop. Each 4¢. worth of "Ceresan" M per acre at seeding time will assure you of an acre of top yielding, high quality grain. Protect your investment—

TREAT YOUR GRAIN WITH "CERESAN" M

CANADIAN INDUSTRIES LIMITED
MONTREAL WINNIPEG CALGARY
SASKATOON REGINA EDMONTON



Do you need

A BULL ON YOUR FARM?
BREEDING STOCK?

FIL has helped to finance thousands of Canadian farmers in such purchases. See your B of M manager about a Farm Improvement Loan—soon... It may mean extra profit for you this year—and many more.

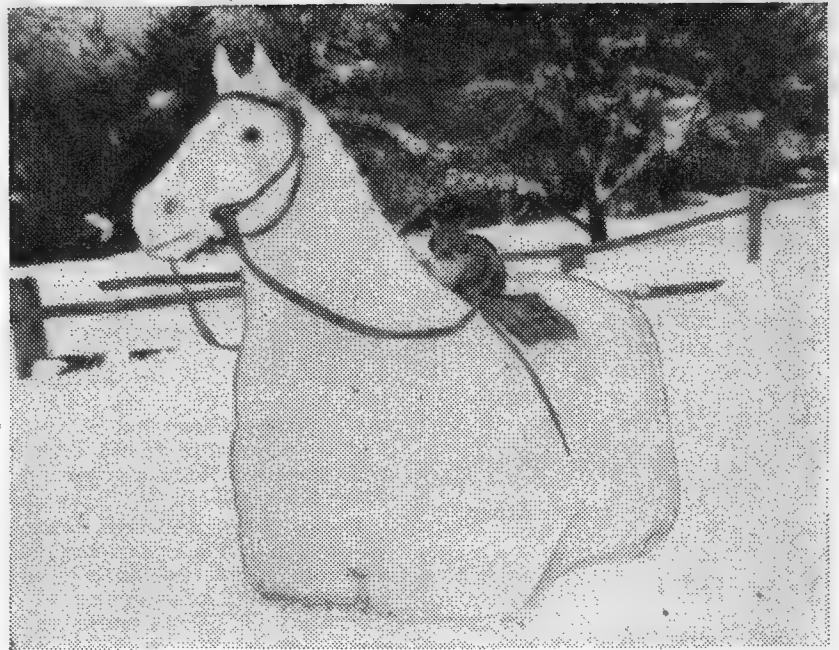


BANK OF MONTREAL
Canada's First Bank

WORKING WITH CANADIANS IN EVERY WALK OF LIFE SINCE 1817



Snow Horse



Irene Karlsten of Arrow Park, B.C., sent us this picture of a very realistic snow horse which her mother and sister made this winter.

Lack of confidence is shown in handwriting

By DAVID MEYER

TODAY we will discuss the inner state of mind known as the feeling of inferiority. A person afflicted with this feeling cannot put his best foot forward in applying for a job, meeting competition or wooing his girl.

Now, it is important to remember that this inner feeling has nothing to do with its victim's actual abilities, cleverness or attractiveness to the opposite sex. He may have more than average mental equipment, be adroit in business and have most of the qualifications for a good mate; yet, laboring under the shadow of this feeling of inferiority, he will suddenly be seized by doubts and uncertainties in crucial situations to his harm.

Often, a person will appear apathetic and indifferent to others while deep inside him this feeling lives in a very anxious state of mind. He fears failure more than death; worse yet, he anticipates failure and often brings it on.

Lacking self-confidence, he deprives himself of the good use of his own judgment and falls easy prey to others' snap judgments, praise or blame.

He will too often fail to see a thing through for the same reason. He will embark upon a project with enthusiasm but somewhere along the way an inevitable obstacle or unexpected tangle will appear. To others this roadblock will seem puny and easily removed, but to our victim of the feeling of inferiority it will assume portentous proportions. He will feel it beyond him to cope with it. His enthusiasm will wane and he will lose interest and he will turn aside to his loss.

As is usual with this behavior pattern, as with others, it originates in childhood, in the relations between child and parents. Some parents push their children too hard. The children feel they must adhere to all the do's and don't's in order to have their parent's love and approval. They feel they must outshine the other kids in school, on the playground and in other activities or their parents will disapprove. This tension of fear of disapproval later in life transfers itself to fear of failure, to the feeling of inferiority.

Now, here are the ways in

What does your handwriting reveal?

Are you a natural-born salesman or would you make a better mechanic? Have you got hidden talent for art, cookery or stenography? Would you be interested in getting the verdict of an expert on the character your handwriting reveals?

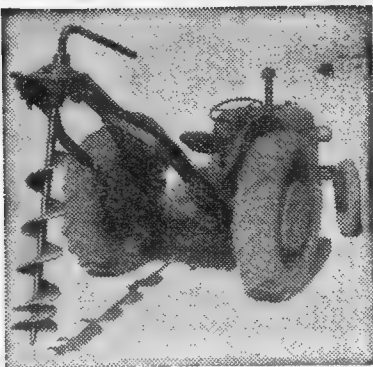
The Farm and Ranch has arranged with Mr. David Meyer, the author of this new and regular feature of the Farm and Ranch, to analyze the handwriting of its readers. Here are the rules:

Write at least 12 lines with pen and ink on good paper. Do NOT—repeat—NOT use a ball-point pen or pencil. Send it together with 25 cents in coin:—

DAVID MEYER,

7½ Jane St., New York City, New York, U.S.A.

Do not send stamps and always enclose a self-addressed envelope.



"EASY-WAY"

POST-HOLE DIGGER

Price Only \$169.00

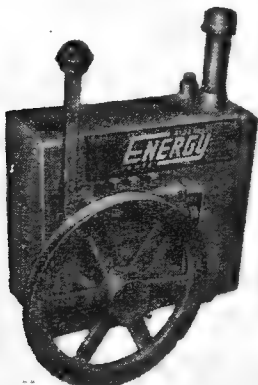
Fits all types of tractors and digs 6" to 9" post holes—up to 48" deep—40 to 60 per hour.

Equipped with (1) Heat treated removable bits, (2) Oil sealed mechanite gears, (3) Universal joint.

Fully Automatic models for FORD-FERGUSON Tractors, Allis-Chalmers, Case, John Deere, etc. Lowest Price of it's kind.

FINGER TIP Hydraulic Control

For Farm Implements



Pump, valve, and tank in one compact, self-contained unit. All units driven from crankshaft or belt pulley leaving power-take-off free. Mounting brackets available for practically all makes of tractors. Pump capacity—10 G.P.M. and 2,000 P.S.I. Hydraulic cylinders available in standard lengths, 8" 10½", 16".

INDIVIDUAL UNITS ALSO AVAILABLE AS

- Hydraulic Cylinders.
- Pumps 2 sizes 10 or 20 gal. per minute.
- Hose with couplings attached in bulk.
- write us today.
- Breakaway couplings. See or
- Renewable couplings.

NEW 7-TON CAPACITY TRUCK BODY HOIST



Saves costly hand-unloading of crops and feed rather than the old-fashioned—back-breaking way.

Consider these facts:

- ¼ lower price saves you \$80 to \$100 in hoist cost alone!
- Mount it yourself saves an additional 15% for installation!
- 50% less weight lets you haul ¼ ton more payload per trip!

Less than \$1 per day

Less than \$1.00 per day is all it takes to mechanize "101" tedious unloading jobs with the new 7-ton capacity Jumbo Twin hydraulic hoist. Fits any 1-1½ to 2-ton farm trucks up to 161" W.B. Quickly installed in your own shop with ordinary tools.

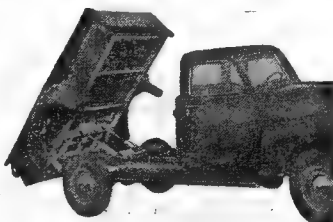
WRITE FOR FREE FOLDER

Low Agricultural Price, Only

\$430

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For ½, ¾, and 1-TON TRUCKS



NATIONAL DUMP-O-MATIC HOIST

Converts your pick-up into a "rush order" dump truck for delivering grain, feed, sand and supplies. Saves using costly hand-unloading or expensive dump units for small lot deliveries. Improved twin hydraulic hoist dumps 3-ton loads in seconds. Low 1" to 2" mounting height simplifies loading by hand, gives excellent "road-ability"

Low Agricultural Price, Only

\$375

F.O.B. CALGARY

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RIBTOR MANUFACTURING AND DISTRIBUTING CO. LTD.

607 - 2nd Street E. Calgary. "THE BEST ADDRESS IN THE WEST FOR VALUE"

which the feeling of inferiority manifests itself in handwriting:

confidence

Sample number 1. The writing is too small. The middle zone, the zone of the social ego, is squeezed down below normal proportions. Such a writer is often modest, humble, devoted, peaceful, very dependable, too conscientious. He is literally forcing himself into breeches that are too small for him. He is lacking in self-confidence, is hemmed in by all sorts of irrational fears and apprehensions, is submissive and dependent, dependent, and is a prey to despondency. His capabilities may be of a high order, but he is blinded to them by his unconscious feeling of inferiority.

confidence

Sample No. 2. If you will take a ruler and draw a line along each letter, you will find that the lines run in every which direction. The writer lacks direction, is drawn hither and thither by the impulse or pressure of the moment, is inconsistent, rarely sees a thing through. His inner economy is disorganized by his feeling of inferiority.

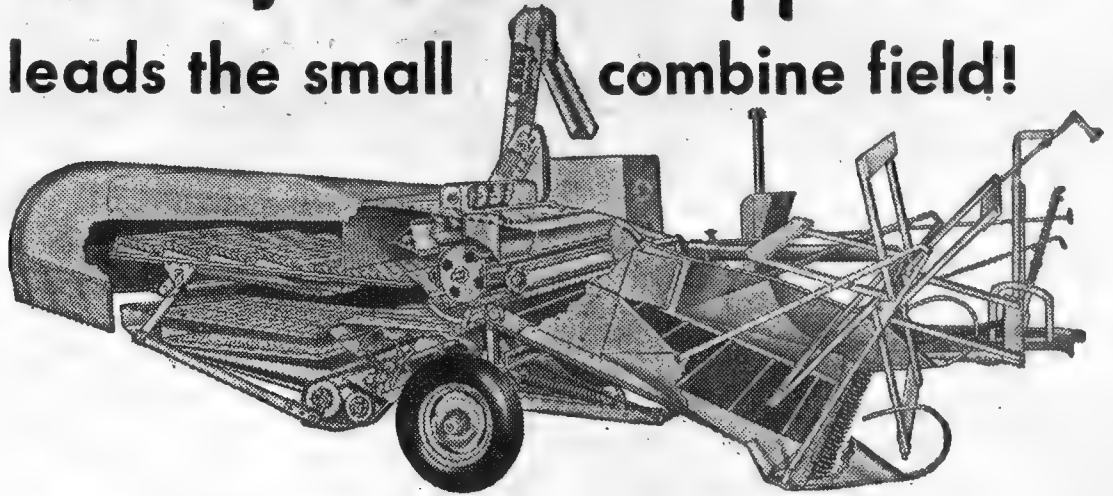
confidence

Sample No. 3. Note that the upper extensions of the letters f and d are uneven, as are the sizes of the other letters. Here again we have the baleful manifestations of the feeling of inferiority, with its hurried manner of doing things, lack of confidence in one's own judgment, lack of awareness of one's own strength, over-estimation of others' strength and power, fear of competition, fear of putting up a bold front lest one's weaknesses be discovered in time, and a recklessness that is born of despair.

Writers with a feeling of social inferiority will often write the address on the envelope on the extreme left side, as if they were fearful of showing themselves in public, of making a positive statement, of speaking out with force to be heard. It's as if they were covering their mouths while speaking, fearful lest they say something inappropriate at which the one addressed will take offence.

People with the feeling of inferiority must, to cure themselves, become aware of the great difference between the way they feel about themselves and what they really are. They are always much, much better than they feel they are. They should compare their qualities, such as the power to reason, judge, act, maneuver, etc., with others', and they will find them quite sufficient. Above all, they should remember that failure is an inevitable companion to success, and that even Napoleon lost six out of 12 battles.

Here's why the Massey-Harris "Clipper 50" leads the small combine field!



The M-H Clipper 50

- PUTS MORE BUSHELS IN THE GRAIN TANK
- HANDLES MORE ACRES PER DAY
- HANDLES HEAVY CROPS WITHOUT OVERLOADING

because the Separation Area is a full 5280 square inches

The stepped-up Separation Area of the Clipper 50 helps save grain that might otherwise go over the straw . . . provides extra capacity in heavy crops . . . helps harvest more acres per day. Other construction features that make the Clipper 50 a leader are (1) full 6 or 7 foot cut (2) full width cylinder (3) enlarged chaffer and cleaning sieves.

Other improvements count every

day on the job too. For instance, the swing hitch narrows the width of the unit for transport . . . the full-floating table has three-point suspension with heavy cross-bracing to prevent twisting . . . the gentle slope of the canvas assures smooth, even feeding of material to the cylinder. This combination of features guarantees you full value and lasting satisfaction.

See your Massey-Harris dealer soon.



**Proven Greater Capacity
in over 110 different
grains, seeds and grasses**

MASSEY-HARRIS-FERGUSON LIMITED



New Idea full trailing-type mower in thick stand of mixed timothy and red clover. Quiet and smooth-running, this mower trails perfectly, cuts evenly.



New Idea semi-mounted mower. Self-contained, quickly adaptable to most tractors. This model and trailing-type above are available with hydraulic lift.

7 ways to lower mowing costs

- **Buy a mower that is quick on-and-off.**
Frees tractor immediately for other work while hay cures. You can take quick advantage of weather breaks.
- **Buy a mower that will last.**
You need rugged strength without excess weight. Close tolerances and correct balance keep machine from vibrating itself to pieces.
- **Buy a mower that cuts clean on square corners.**
Then you don't have to back up, circle, or figure-eight. Saves time and fuel. But be sure the machine is built so there is no strain on the PTO or universal joints.
- **Buy a mower that is simple to adjust.**
To keep lead and pitman straps properly adjusted at all times for maximum cutting efficiency.
- **Buy a mower with protected gears and moving parts.**
Gear assembly should be sealed in oil, free from dust and grit. Bearings should be protected and easy to grease.
- **Buy a mower with modern pitman bearing.**
To stand the constant pounding of the reciprocating motion of the sickle, crank bearing should be a completely sealed roller bearing.
- **Buy a mower that is safety engineered.**
Cutter-bar safety release is a must. Safety shields enclosing moving parts help insure against human error. Trailing cutter-bar gives you time to stop before accidents occur.

You will find every one of these time and money-saving features built into NEW IDEA trailing or semi-mounted type mowers... mowers that are a major tool at NEW IDEA, not a side-

line. Use these mowers to bring costs down. Ask your NEW IDEA dealer to demonstrate a NEW IDEA mower. Compare other makes. We think you'll end up owning a NEW IDEA.

NEW IDEA FARM EQUIPMENT COMPANY
Coldwater, Ohio, U.S.A.

Send free folders as checked:

NAME _____

ADDRESS _____

Allied Farm Equipment Ltd.
Sutherland Ave. at King St.
Winnipeg, Manitoba

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Kern Farm Equipment Ltd.
Regina - Saskatoon - Yorkton
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MAIL COUPON TO YOUR
NEAREST DISTRIBUTOR

- ☐ Trailing Mower
☐ Semi-mounted Mower
☐ High-wheeled Side Rake
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☐ Wire or Twine-tie Baler
☐ Elevator
☐ Need for schoolwork
☐ I farm _____ acres

Either Paul is a liar or most of us live like fools

By DR. FRANK S. MORLEY, Ph.D. (Edin.) B.D.

IF the Bible be true — really true — then life is more wonderful than most people ever dream. Take the words of Paul in the fourth chapter of Philippians: "My God shall supply all your need". This is no thoughtless rapture. Paul repeats almost the same words again and again through his writings. Now we are faced with this dilemma: Either Paul is a liar or most of us are living like fools.

"But", you say, "this is only Paul speaking." Yes, but Paul did not get this idea from himself. Just listen to the flat, blunt statements of Jesus: "Have faith in God... Whatever things ye desire, when ye pray, believe that ye shall have them... Ask, and it shall be given you; seek, and ye shall find; knock, and it shall be opened unto you... Everyone that asketh receiveth... have faith, nothing shall be impossible unto you... If ye shall ask anything in my name, I will do it." When the disciples once doubted the possibility of His statements, Jesus said, "Ye do err, not knowing the power of God".

All the Gospels repeat these statements. Paul was not alone in his amazing confidence. So Jesus says, "If any of you lack wisdom, let him ask of God and it shall be given him. Every good gift and every perfect gift is from above." James gets angry with us. "Ye have not because ye ask not". Isn't it astonishing? If we lack, it is because we do not ask! Can you accept this? For my part I say, Let God be true, though all the world be proved a liar.

Do We Really Believe?

Notice that Paul says "my God". God is a stranger to most of us. I had a friend come to Church recently, a boyhood chum with whom I played games and went to school. We almost lived together, eating and sleeping at one another's homes. Alas! I did not know him when I met him. We have not seen one another. We have grown

apart. Friendship can only be carried on by conversation and association. So if you cannot say, "my God", with Paul's intimacy, if God is unknown and a stranger to you, how could you expect it to be otherwise if you do not seek His friendship?

Millions of people repeat the creed, "I believe in God", but it means no more than if they were to say, "I believe there is salt in the sea". Their faith has no influence in their lives. Recently a canvas disclosed that 95 per cent of us believe in God, but only 39 per cent say that their beliefs have any influence on their business or social life. So we leave God out of our calculations.

Of a character in a novel it is said, "She had God on her waiting list". That is where most of us try to keep God. But God will stay on no man's waiting list. He either comes to reign or He does not come. He will have no divided loyalty, no partial love. "Ye cannot serve God and mammon". Either King or nothing! Faith cannot be partial. It is the complete response of the whole being, mind, heart, and will to God. "Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind". We must get into complete alignment with God. We must become identified with God's law and God's order.

We Need God

"My God shall supply all your need". When will our nation find out that it needs God to guide its political life? Recently a Presidential breakfast was held in the Mayflower Hotel, Washington, for the International Christian Leadership Convention. Senator Carlson of Kansas presided over the 600 guests. Conrad Hilton, the host, spoke on prayer. Vice-President Nixon read the Scripture from the fifteenth chapter of John's Gospel. President Eisenhower also spoke. Chief Justice Warren was the chief speaker. The meeting closed with a hymn and

Solution to last month's puzzle

S	A	L	A	A	M	H	E	R	D	B	O	A	T	V	E	L	A	T	E	
A	L	U	M	N	A	E	T	U	I	A	R	N	O	I	N	U	R	E	D	
P	A	N	T	G	O	A	N	S	A	T	E	D	A	L	R	I	N	G		
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C	O	N	D	E	M	N	A	T	I	O	N	O	N	P	R	E	T	E	N	D
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E	P	S	O	N	D	I	V	E	R	G	E	T	A	R	G	E				
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S	T	A	G	E	S	O	G	E	E	N	T	E	S	T	A	K	E	S		

a prayer by another great Christian layman, Abraham Vereide. The report says, "There's a wonderful atmosphere in Washington. Even the cab drivers reflect it. There's a sense of the primacy of spiritual values... a new realization that America at its greatest is a spiritual America... Many in Washington are taking God seriously. They're in dead earnest about it. They have a deep, passionate concern to find God's pattern, God's way, to lead America and the world into the light and freedom".

Can Canada find out that we need God? How long will it take us to learn that no nation can survive that is not built upon faith in God? The teaching of the Bible is that when Israel possessed faith in God, Israel was prosperous and strong. When Israel deserted God, Israel was defeated and in misery.

What Do We Need?

Paul thinks of the Church and of individuals rather than the nation. God will supply all the need of the Church at Philippi. Will God supply the need of any group of people who believe in Him and approach Him through Christ in faith? I believe He will.

What then of individuals? Paul says God will supply everything you need — "All". What do you need? Is it material things? Do you need money? a house? work? "Your Father knoweth that ye have need of these things... Seek ye first the Kingdom of God and His righteousness and all these things shall be added unto you".

Do you need character? "The God of all grace shall Himself perfect, establish, and strengthen you". A soldier was frightfully disfigured. In the hospital a plastic surgeon went to work on him. "Show me a picture of yourself", the surgeon asked, "that I may know how to restore your face". The soldier replied, "I never was much to look at, but make me like that picture". He pointed to a picture on the wall. So the face was restored. Later he learned that it was a picture of Jesus Christ. From that time on he tried to shape his whole life inwardly as his body has been shaped outwardly like that of our Lord. God can give you character, even you.

Do you need guidance? Do you not know that "all things work together for good to them that love God"? God will tell you the way to go, what to do. Ask Him. Thoreau says that the mass of men lead lives of quiet desperation. I believe that. Foolish when they could be secure and strong.

They say that Charlotte, N.C., is a difficult place in which to find your way about until you locate Providence Road. All the streets can be identified from Providence Road. The road was so named because it leads to Providence Church. All the streets of life are a maze until they are related to Providence Road. You are lost until you find God. Nothing has meaning, purpose, direction, or sense. We can control our destiny. We need not drift. We must have "celestial reckoning," God's guidance.

Do you need healing? Way back in Exodus men were told, "I am the Lord that healeth thee". Miracles of healing are being achieved by prayer today. The evidence from the doctors is overwhelming and astounding.

(Continued on page 34)

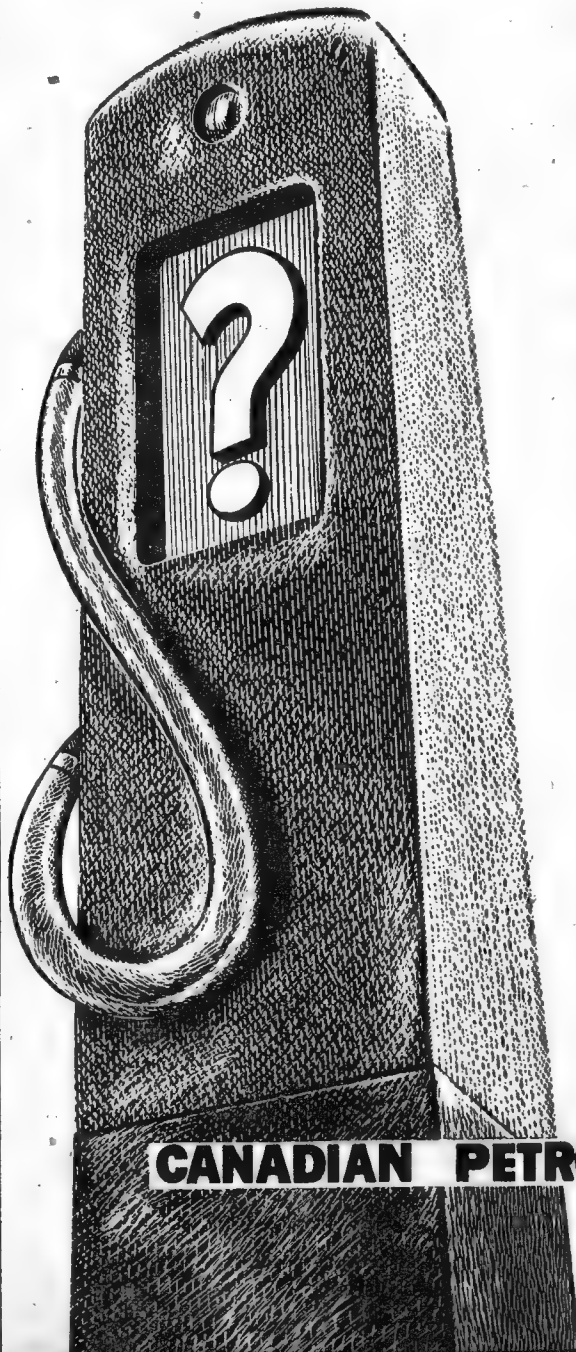
what has happened to the price of Gasoline on the Prairies?

Gasoline prices on the prairies have dropped. While the cost of nearly everything else we buy has gone up, the price of petroleum products has done better than hold the line.

Since 1948, the average wholesale price of gasoline on the prairies has *decreased* more than 12%*. In the same period, the cost of living has gone up 20.2%.

By finding new sources of oil, the oil industry has held down the price of petroleum products.

* Based on wholesale prices in principal cities. The wholesale price is what the oil company receives and does not include provincial tax or dealer margin.



CANADIAN PETROLEUM ASSOCIATION

PRIME Minister St. Laurent's trip around the world in late February and early March helped clear the air in Canada with respect to several Asian issues. Mr. St. Laurent (and it may be assumed that a majority of his cabinet colleagues as

Canada's far Eastern policy based on reality

By BEN MALKIN

"Could I keep working?"

Perhaps YOU may be faced with this question someday!

"I suffered a great deal from such pain in my legs, knees and other joints, that it was hard to do my work," writes Miss Thelma Johnson, Picton, Ont. "I was having so much trouble, I wondered if I would be able to continue at my job. Then I learned about T-R-C's. What a fortunate day that was, for I have had the very best sort of relief. I wouldn't want to be without T-R-C's in the house."

Don't suffer needlessly from relentless arthritic pain. Get quick relief from dull, wearisome aches caused by Arthritic, Rheumatic, Neuritic, Sciatic pain, Lumbago or Neuralgia. Start taking Templeton's T-R-C's today. 65c, \$1.35 at drug counters. T-873

well) believes in principle that the Communist government of China should be given diplomatic recognition — if not now, then eventually. He believes, with Prime Minister Nehru of India, that there should be a truce in Indo-China. An armistice would, of course, leave the Communists with some of their gains intact, and would be the result of compromise. He favors the broadest possible trade with Japan, and he is not afraid that American military aid to Pakistan will lead to increased friction between that country and India.

In brief, he seems to believe that a settlement in the Far East cannot be reached if the

Communists are expected to surrender unconditionally; and that a stable peace would have to be supported by U.S. military aid to Asian countries such as Pakistan, and by economic soundness based on trade.

It may be expected that this will be the Canadian approach to the Geneva conference on Asian countries such as Pakistan, and by economic soundness based on trade.

It may be expected that this will be the Canadian approach to the Geneva conference on Asian problems, which opens toward the end of April. It seems the only one from which a settlement might reasonably be expected.

Reds Invited

The Geneva conference will talk about the unification of Korea, which would require Chinese, American, and other foreign troops to withdraw from that country, and an end to the war in Indo-China. Significantly, it is the Communist government that has been invited to send representatives to Geneva, not the representatives of the old National government, now located on the island of Formosa.

And it is logical that this should be so, for whether the Chinese people approve of the Peiping regime or not (and there is no way of knowing) it is a fact that the Communist government exercises authority over the Chinese nation, and speaks for it, with or without the nation's consent.

Any business done with China has to be done, for better or worse, with the Communist

(Continued from page 33)

Do you feel alone? Remember Jesus said, "I am not alone; the Father is with me". Remember how Jesus said, "Lo, I am with you, even unto the end of the world". But ask God for friends. He will send them, too. "My God shall supply all your need."

Is your home breaking up? Your trouble then undoubtedly lies in the fact that you have not put God central. God must be the sun in your universe. "Without me ye can do nothing, let not man put asunder".

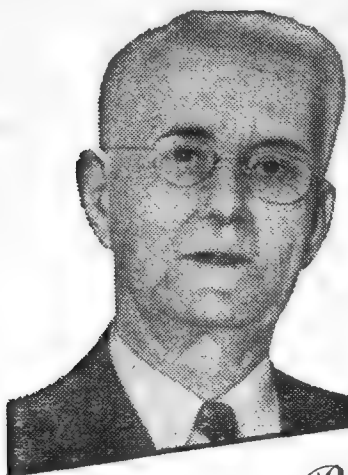
Are you bereaved? Has the dear-love of your life left you and gone out into the night and your hungry soul stares out into the darkness, desperate and lonely? Did you never read about the resurrection of Jesus? Don't you know the good news about the life beyond the grave?

Jesus told us that He just went there before us, preparing a place for us that where He is there we might be also. "His servants shall serve Him and they shall see His face". Do you not know the Easter gladness, "Death is swallowed up in victory"?

The future life is a miracle. But this life is a miracle. Not to live twice, but to live once, is the wonder. If God made this life, why should we doubt that He can make another? It is a life of such glory that "eye hath not seen nor ear heard, neither hath entered into the heart of man the things that God hath prepared for them that love Him".

If Jesus were to address us today He would say, "Why do you live such inconsistent, broken, ineffective, frustrated, unhappy lives?" He would ask us in perplexity, "How is it that ye have no faith?" He would condemn us, "O ye of little faith!" As God spoke to Saul Kane, so He speaks to us, "Thou drivest Love from Thee, who driest Me." So we drive away prosperity, good fortune, happiness, vitality, friendship, gracious living, and all material and spiritual delight, by driving God away.

Try the following practice — I beseech you, just try it: Rise in the morning and go to bed at night, repeating over and over the doxology. "Now unto Him who is able to do exceeding abundantly above all that we ask or think, according to the power that worketh in us, unto Him be glory in the Church by Christ Jesus, throughout all ages, world without end."



"It's Astounding

...that your policy paid me more in dividends than I paid out in premiums"...

says Mr. R. B. Blyth.

Robert Bayne Blyth
4490 BROADALE ROAD
CLEVELAND 9, OHIO

25 January, 1954

The Mutual Life Assurance Company of Canada.
Waterloo, Ontario.

Gentlemen:

Let me express my deep appreciation of your promptness in forwarding the cheque in settlement of the quinquennial dividend on policy 53970. I want also to express my great gratification at the results of this policy, taken out by me when I lived in Victoria, B.C.

Not long after I took out the policy, it seemed advisable for me, for health reasons, to come to this country, where I have been ever since. Had I remained in Canada, I certainly would have bought more insurance with your Company, but living on this side of the line, I secured several policies from other companies. While I have been pleased with the records of some of these policies, none of them compares favorably with the one I have with The Mutual Life of Canada.

It happens that we have five children, for each of whom I took out a policy when they were in their 'teens—in five of the better companies in this country. But none of these policies show a record that compares favorably with the record of the policy I have held with you.

I presume you have the policy result before you. It is one of which you may be proud. To me, it is astounding that I should have received in dividends from the policy an amount more than equal to the total amount of the premiums I paid out—while the policy still offers the protection it always did. It is a marvellous record for which I am profoundly grateful.

Sincerely yours,

R. B. Blyth

You have full permission to use my letter of January 25, 1954, in any way you deem best. I shall be highly gratified if it can be used to call attention of a wider public to the advantages offered by your company.

R. B. Blyth

THE MUTUAL LIFE
OF CANADA

HEAD OFFICE WATERLOO, ONTARIO

Canada's first mutual

Established 1869

ML21-54

government, which is why this regime will represent China at Geneva, and which is why Mr. St. Laurent said the Peiping government would have to be given diplomatic recognition.

The Chinese Communists want diplomatic recognition, and would perhaps be willing to trade something for it. They want recognition because it would remove support from the Nationalists, and because it would help open up trade with China. Perhaps recognition could be used by the West as a bargaining counter in obtaining a settlement in the Far East.

One possible advantage of recognition should not be overlooked. There are many points of friction between China and Russia, even though both are Communist countries. Failure to recognize the Peiping government, and the effort made since 1949 to isolate it, have driven China closely into Russia's arms. If more normal relations were established between Communist China and the West, it is possible that eventually China and Russia would drift apart.

At least, that is the hope. It doesn't mean that China will become another Yugoslavia. China and Russia needn't work as close allies against the West on every issue that comes up, that will be a gain, and the way to achieve it is to be friendly enough with China to permit Chinese differences with Russia to run their course. British statesmen have for long felt that this was the wisest policy for the West to follow, and now that the cold war is thawing, perhaps it will be given a trial.

Creep-feed

Suckling pigs

START them young and keep them coming, advises J. G. Stothart, Senior Animal Husbandman, Lacombe Experimental Station. Creep feed your little pigs and give them the highest quality feed you can. When they are three weeks old they should be in and out of the creep, supplementing their mother's milk with the solid fare provided. Keep oat hulls and other fibre out of their feed and keep clean fresh water before them all the time.

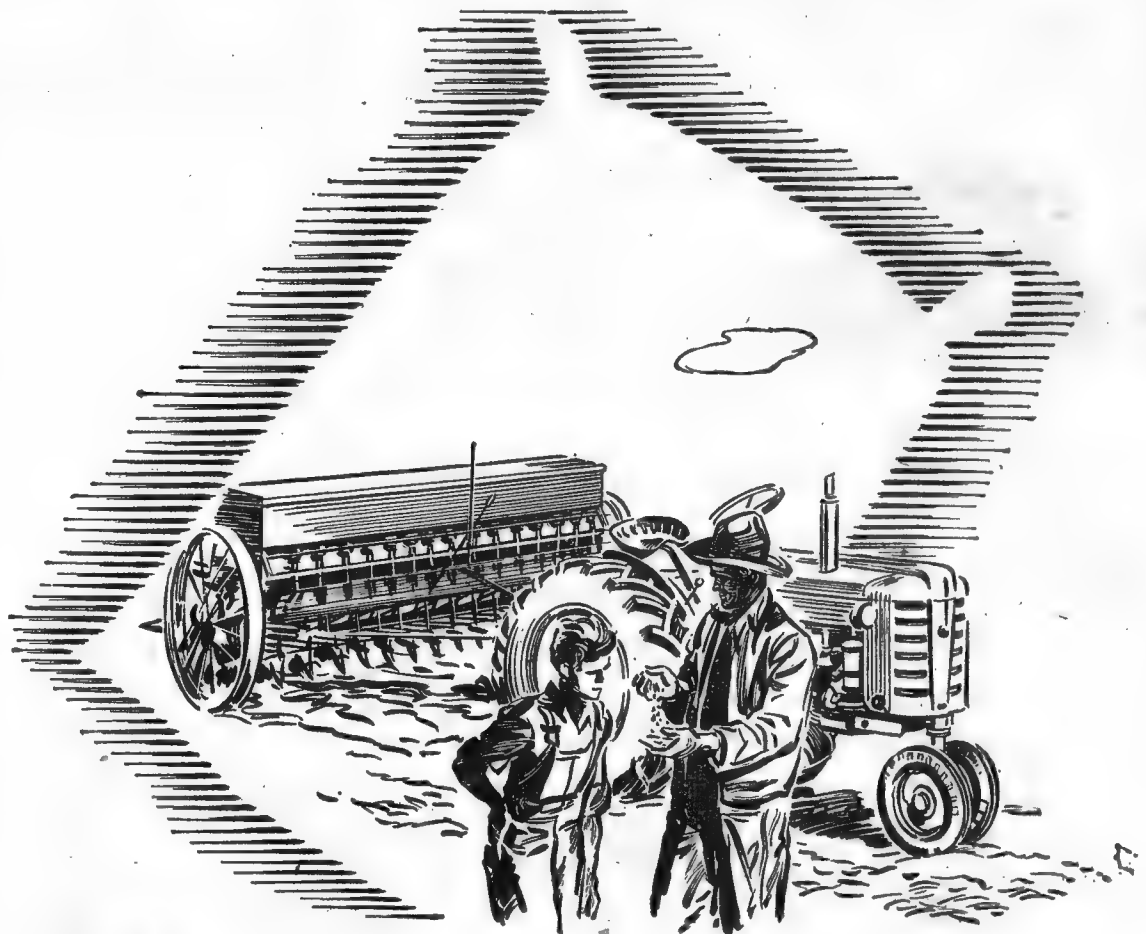
Use rolled wheat, whole hull-less oats or oat groats for the basic creep feed, and supplement it with a rich protein-mineral mixture. If skim milk is fed instead of the supplement, make sure that it is sweet and always of the same quality. There are several mixtures and pig starters on the market that contain all necessary ingredients for the young pigs.

If pigs are doing well before weaning, there is little set-back when the sow is taken away. Make all feed changes gradually, Mr. Stothart advises. When changing from the creep mixture to the growing ration, a week or two after weaning, feed the combination for a few days.



MACDONALD'S Fine Cut

Makes a better cigarette



Ideas can be planted, too!

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LOANS** are available for many useful purposes. Ask for our booklet on the subject at your nearest 'Royal' Branch.

You don't have to teach that son of yours that to reap a harvest, he must sow the seed. It may not be so easy to convince him that saving money can also bring a rich harvest . . . of inner satisfaction and peace of mind. Teach him to manage his own financial affairs while he is still young. Plant in his fertile mind the idea that the *saving habit* is one of the surest roads to success. Encourage him to open his own personal account with The Royal Bank of Canada. We welcome his account, no matter how small.

"Financial Training for your Son and Daughter" is the title of a booklet which describes a practical programme for teaching your children how to manage their own financial affairs. You'll find it interesting and useful. Ask for your free copy at any branch.

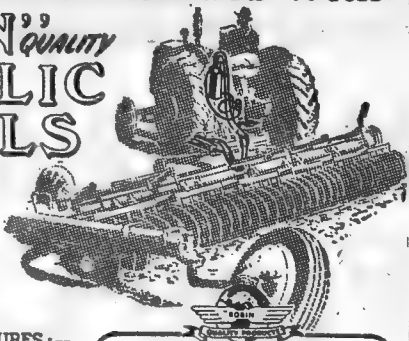
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"ROBIN" Hydraulic Controls are designed especially to meet the needs of the farmers who want to convert their machinery to hydraulic control, or to team a tractor of one make with machinery of another. EVERYTHING to do a COMPLETE JOB, quickly, easily and efficiently.



CHECK THESE "ROBIN" FEATURES:—

- (1) Easily installed. No fitting required. Use ordinary tools available on any farm. No drilling required.
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If you want THE BEST — It must be "ROBIN"!

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**COMPLETE POWER KITS
TO FIT ALL TRACTORS**
include Valve, Pump, Tank
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IMMEDIATELY
AVAILABLE
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Hydraulic Control kits are available for most popular makes of machines. Enjoy the benefits of hydraulic controls for your farm machinery this year. Remember, more efficient farming means more profitable farming.

Full information on the kits that you will require, and prices, will be supplied on request.

**NEW LOW PRICES
ARE NOW IN
EFFECT**

Happy as Pigs!!



Frank Kozar, St. Joseph's College, University of Alberta, Edmonton, snapped this picture of contentment among hogs on his father's farm at Sunnybrook last summer.

Seeding rates in Southern Alberta

By U. J. PITTMAN

IT has been shown at the Lethbridge Experimental Station that the yield of cereal grains is dependent not only on the method and date of seeding, but also on the uniformity and rate of seeding. Seeding done

with badly worn or damaged seed drills cannot produce optimum conditions for seed germination or plant growth.

Worn feed cups and fluted feed rolls fail to deliver grain in a uniform manner to the furrow openers, and therefore cause spotty or patchy fields. Damaged or worn furrow openers fail to ensure proper seed placement and seed coverage in the soil. Repairs to or replacement of these important parts should be made when necessary.

Prior to spring work, it is advisable also to calibrate the seed drill with a sample of the grain to be used and to check the seed tally. The actual rate of seeding to be used will vary from soil zone to soil zone, depending largely on the supply of moisture available for crop growth. Where moisture is plentiful, higher rates of seeding may be used than in drier areas. Abnormally heavy rates of seeding may cause plant crowding, while abnormally light rates of seeding allow for weed growth within the crop.

It is well to note that rates of seeding cereal grains in Alberta gradually increase from the eastern parts of the Province to the foothills area in the west. Seeding rates on irrigated land are considered separately.

As a general guide, the following rates of seeding are recommended for Southern Alberta:

Spring Wheat— $\frac{3}{4}$ bushel per acre in the east to $1\frac{1}{4}$ bushels in the west.

Barley — $1\frac{1}{4}$ bushels per acre in the east to $1\frac{3}{4}$ bushels per acre along the foothills.

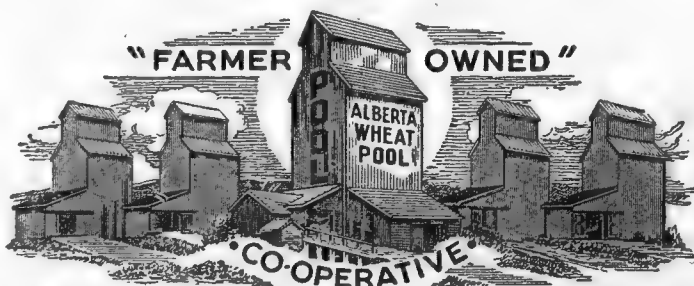
Oats — 2 bushels per acre in the east to $2\frac{1}{2}$ bushels per acre in the west. Slightly higher rates may be used if the oats are to be cut for green feed.

Flax — $\frac{1}{2}$ bushel per acre throughout most of Southern Alberta.

Valuable Services Rendered—

Alberta Pool Elevators has provided its member patrons with:

1. Efficient, economical operation.
2. Protection against monopolistic exploitation.
3. Savings in the form of the return of excess earnings in patronage dividends and redemption of reserves.
4. Democratic control of operation policy through the election of delegates.
5. Participation in a great co-operative enterprise which has proven an outstanding success in its 28 years of operation.

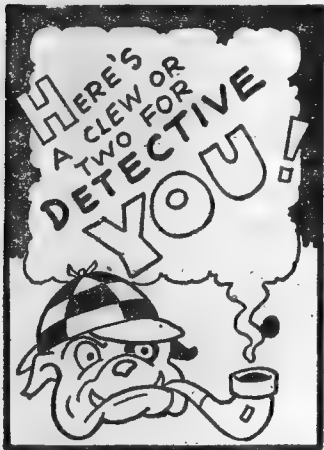


"IT'S ALBERTA POOL ELEVATORS FOR ALBERTA FARMERS"

FUNLAND

THE FAMILY ENTERTAINER

by A.W. NUGENT
The WORLD'S
LEADING
PUZZLEMAKER



FIRST NAME

X	E
O	D
U	B
A	T
R	N
U	G

PRINT THE THIEF'S FIRST AND LAST NAME IN THE BOXES, READING DOWNWARD, TO SPELL 11 THINGS HE STOLE. READ ACROSS.

LAST NAME

E	D
U	M
A	R
I	G
A	G

ARTHUR BROWN

FINISH DICK SHAW'S INCOMPLETE REPORT TO HEADQUARTERS.
EACH WORD STARTS WITH THE LETTERS "TH". PRINT A LETTER OVER EACH DASH TO COMPLETE THE TWO TRICKY SENTENCES.

TH _ TH _ E _ TH _ E _ I _ G
TH _ G _ TH _ E _ T _ N _ D
TH _ TH _ A _ E _ TH _ O _ G
TH _ R _ D _ Y.
TH _ S _ TH _ Y _ TH _ U _ H _
TH _ T _ TH _ I _
TH _ N _ E _ TH _ I _ L _ D _ TH _
TH _ U _ A _ D _ TH _ R _ .

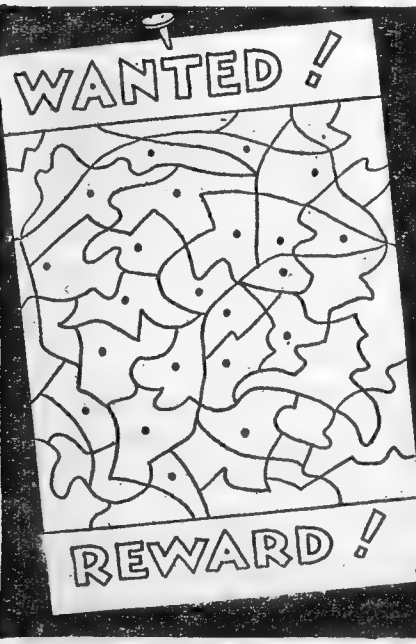
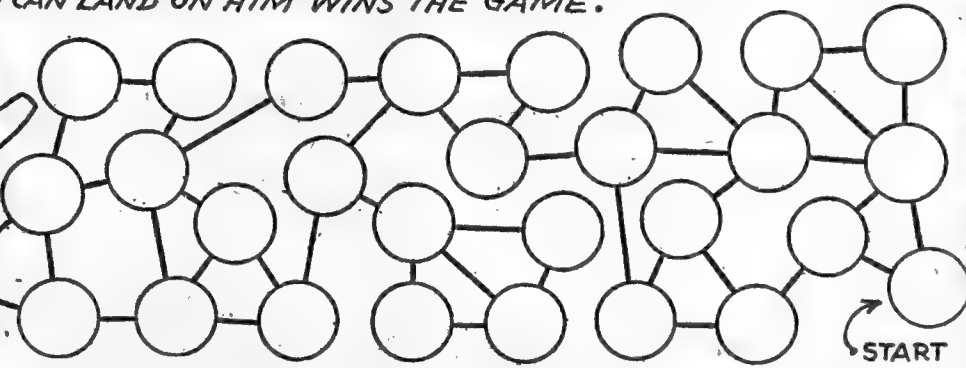


TRY
TO UNRAVEL THIS
GANGSTER'S PUZZLING
NOTE.
HERE'S A HINT -
THE NUMBERS FORM
THE LETTERS.

60120131316
SHOT13013TH18
SAT.47TOM'S
13A12. 1316 13088.

SOLUTION: GO ROB BIG SHOT BOB THIS SAT. AT TOM'S BAR. BIG BOSS.

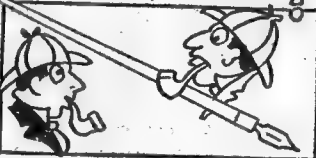
TWO PERSONS CAN PLAY THIS COP AND ROBBER GAME. ONE PLAYS THE PART OF THE POLICEMAN AND THE OTHER THE CROOK. . . EACH MUST USE A DIFFERENT COLORED BUTTON TO TAKE TURNS MAKING ONLY ONE MOVE ALONG A LINE TO THE NEXT CIRCLE. . . THE PLAYER WHO SUCCEEDS IN FORCING HIS RIVAL TO A POSITION WHERE ON HIS NEXT MOVE HE CAN LAND ON HIM WINS THE GAME.



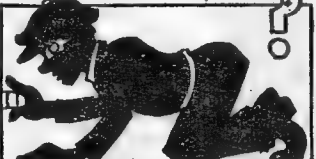
SHADE IN ALL THE SECTIONS IN WHICH THERE IS A BULLET HOLE TO PRODUCE A CERTAIN SHADY CHARACTER.



WHAT PART OF THE HUMAN BODY DOES THIS PICTURE SUGGEST?



WHAT 4 LETTERS WOULD FRIGHTEN A BURGLAR?



WE ARE 2 FLAT FEET IN DISGUISE, THE GUYS WE NABBED ARE NASTY SPIES. TURN OUR HEADS.



JOIN THE CHASE AND ALSO THE DOTS IN THEIR ORDER.

24

W 18 N 20 H 21 34 F 1 F 33 E 32 I 27 I
D 16 13 A 10 9 T 8 E 3 L 2 O 30 T H 31 28 V
K 15 C 14 R 12 11 T 6 W M 4 L
5 O

THEN READ THE LETTERS IN NUMERICAL ORDER.

Super-luscious... Melty-rich...

Butterscotch Pudding Cake



Make it with **MAGIC** and serve it with pride!

Your guests will bless you for each fluffy forkful of this delightful Magic cake! It will be fun to see the family go through a whole cake at a sitting and call for an encore! It's *your own baking* that's clicking!

And dependable Magic Baking Powder is your best assurance of success in all your baking. Four generations of Canadian housewives have proved it! Plan to serve this deliciously different Magic cake this week!

BUTTERSCOTCH-PUDDING CAKE

2 c. sifted pastry flour or 1 3/4 c. sifted all-purpose flour	10 tbsps. butter or margarine
2 1/2 tps. Magic Baking Powder	1/2 c. fine granulated sugar
1/2 tsp. salt	1 egg
1 pkg. Royal Instant Butterscotch Pudding	2 egg yolks
	3/4 c. milk
	1 tsp. vanilla

Grease two 8-inch round layer-cake pans and line bottoms with greased paper. Preheat oven to 350° (moderate). Sift flour, Magic Baking Powder, salt and butterscotch pudding together 3 times. Cream butter or margarine; gradually blend in sugar. Beat the egg and egg yolks together until thick and light; add to creamed mixture part at a time; beat well after each addition. Measure milk and add vanilla. Add flour mixture to creamed mixture about a quarter at a time, alternating with 3 additions of milk; combine lightly after each addition. Turn into prepared pans. Bake in preheated oven about 35 mins. Put cold cakes together with part of Fluffy Vanilla Frosting; frost cake all over with remaining frosting; sprinkle top with cocoa.

FLUFFY VANILLA FROSTING

2 egg whites	2 tps. vanilla
2 c. fine granulated sugar	1 tsp. Magic Baking Powder
1/2 c. cold water	

In top of double boiler combine unbeaten egg whites, sugar and cold water. Place over boiling water and cook, beating constantly with rotary beater, until frosting stands in peaks—about 12 minutes. Remove from heat; beat in vanilla and Magic Baking Powder. Spread immediately.

Costs less than 1¢ per average baking.



Aunt Sal Suggests...

This month we welcome Easter,

And also greet the Spring;

How nice to see the earth awake,

And hear the robins sing.

THERE are so many happy things I could chat to you about... spring bonnets, Easter luncheons, gardening plans, renovating the house... but I'm afraid I'll have to leave that to other writers in order to meet my other commitments. One of those commitments being the results of the special letters many of you faithful readers sent in to this department.

Two months ago several questions relating to home-made soap came in. Being an honest soul (if I'm not anything else), I admitted I'd never made a batch of soap in my life. I asked advice from the readers and... just as I knew I would... I got it. Some of your descriptions sounded so interesting that I was almost almost tempted to try my hand at this old-time pursuit. I say a sincere thank you to all those who did write me and I'm mentioning your names below and quoting from your letters, I'm sending each of you a snapshot of yours truly. I decided it was about

time I got a new picture "took-ed", so thus the delay. But I mustn't expect too much of the camera and I'm so sure that when I see the results I'll moan: "Same old face."

First I'll name the list of the kind soap-makers who took the time to write out such fine directions for making soap. Some of these said they had been making the stuff for 30 years or more; others stated that this method had been used by their mothers and even their grandmothers. Thanks again to the following:

Mrs. R. C., Garrick, Sask.; Mrs. S. J., Huxley, Alta.; Mrs. L. T., Nipawin, Sask.; Mrs. M. J. L., Glenboro, Man.; Mrs. R. W. F., Tilston, Man.; Mrs. R. J. E., Busby, Alta.; Mrs. C. T., Climax, Sask.; Mrs. N. A. J., Cadogan, Alta.; Mrs. A. S., Lethbridge, Alta.; Mrs. C. W., Unity, Sask.; Mrs. A. T., Grindrod, B.C.

Reading these all over I can't help noting that there are various methods of attacking this project. I notice that some use borax, ammonia resin, and some use packaged soap chips along with the grease and lye. I've picked out what looks to

No stories like Grandpa's!

By LOUISE PRICE BELL



CHILDREN who have grandfathers are mighty lucky. Perhaps it is a great-grandfather who has long since stopped working, lives in a town or city and comes to visit your family occasionally. Make his visit a big event, rear the children to look forward to these visits, do many thoughtful things for the old man. They will soon find that the stories he will tell them of the early days in his life and the things that happened in that "long ago" are mighty exciting! Any grandfather who has lived to

have great-grandchildren can't help but have all sorts of tales to tell of the ways things were done when he was a "little shaver". True, he may like to sit by the fire with his beloved pipe, or play endless games of solitaire, but you may be sure that when the smallsters sidle up to him and ask about "the time an Indian chased you", or "the old barn burned down", the old man will be delighted to tell the story even if for the tenth time. There are no stories like those he can tell, and it won't take long for the youngsters to realize that fact.

me like an example of each type of soap-making.

Easy to Make Soap

Place grease on back of stove to melt slowly to consistency of thick honey. Meanwhile in a crock or enamel pan put one can lye and $\frac{1}{2}$ cup powdered borax. To this add 6 cups cold water. Stir until lye is melted. Let stand one hour exactly, then slowly add 9 cups lukewarm melted fat. Stir gently with wooden spoon for 3 to 5 minutes. Cover with woolen sweaters, etc., so it will cool gradually and let stand 24 hours before cutting into large squares.

Soap That Floats

2 qts. clean, melted grease. When almost cold, add 1 can lye that has been dissolved in 1 quart of water (use granite pan and be careful as it splatters). Stir often and when almost cold add 6 tblsps. borax and $\frac{1}{2}$ cup ammonia. Pour into box lined with waxed paper and let stand until hard. Cut in squares before it gets too hard.

Soap in the Iron Pot

(Does not require rendered fat)

In an old iron pot place 4 lbs. fat (not rendered)—beef fat is best. Then add $1\frac{1}{4}$ cups lye and pour in 9 qts. of cold water and bring whole thing to boil. Just boil 5 minutes and set away for over night (at least). Put back on stove and bring to boil. Stir with a stick and keep boiling until what sticks to stick is white and thick as honey. Take from stove and add as much cold water as the pan will allow and stir fast while adding water.

Keep stirring until it starts to thicken and turns white. Pour into boxes lined with waxed paper and clean cloth. Stand for about two days then cut into bars. Leave them on shelves in basement to dry. (This lady says that the lady's soap that crumbled could have been remedied by putting it back in the pan, adding a little more lye to it (when it was still cold) and bringing it to boil again until it coated the stick used for stirring.

Soap Made With Added Soap Flakes

Put into wash boiler and leave over night these: 5 gallons soft water, 2 cans lye, 3 tblsps. resin (from drug store), $\frac{1}{2}$ lb. borax, 1 pkge. of your favorite soap flakes or two bars shredded laundry soap; 10 lbs. warm melted fat. Now boil all this gently for $2\frac{1}{2}$ hours. Don't stir too often. Do not allow to boil over. Cool in boiler. Pour into boxes lined with grease-proof paper or clean rags.

There, now, that should pretty well look after the soap-making question . . . don't you think so. We've given you four different recipes for making it.

You'll notice on my other page that I've thrown two questions open to the help of you readers (1) preparation of lute-fish, (2) making bread by the salt rising method. Anyone sending in help for either one of these may ask for a snapshot of this lady . . . if you want it.

Bye bye for now, and every good wish.

Aunt Sal.

What is Faith? BY A. L. MARKS

AT the risk of appearing presumptuous, I may say that I have long been dissatisfied with the Apostle Paul's definition of faith. It does not analyze satisfactorily.

It is negative, or at least neutral, in its appeal. It is objective, not subjective and positive as it should be. It does not stir one to do anything about the matter as it ought to do. It leaves the one who hears it unaffected. One can take it or leave it as a simple statement of fact, not necessarily intended to influence one in any way, but is far too important a matter to be left so defined.

Listen: "Faith is the substance of things hoped for, the evidence of things not seen."

So what? Who is affected by that statement to do anything about it?

No. Faith is more than that. It is a willing, living, driving force, upon the value and results of which you are prepared to bet even your life. Or, alternatively it is of no value but for discussion purposes. Something to be talked about but of no special importance.

Paul himself was a perfect and extreme example of the inspiring power of faith. He went, after witnessing the stoning to death of Stephen, toward Damascus, to arrange for the mass murder of the Christians there, under convictions that his loyalty to his religion, as a Jew, demanded it.

After his experience on the road to Damascus, his faith led him into an exactly opposite course, and he was willing and prepared to take the course which Jesus had suggested to His disciples when He told them: "If any man would come after Me, let him DENY HIMSELF and take up his cross and follow Me".

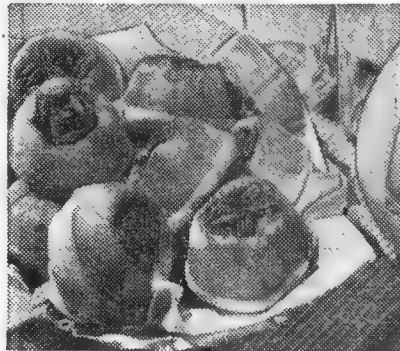
His faith had inspired him to action. It had inspired him to deny himself and all his selfish desires, and to follow Jesus Christ wherever it might lead. His faith was the gift of God which meant his salvation.

What, then, is the salvation which comes through faith in God? It is salvation from oneself. It is the greatest gift that can come to man from the hand of God, through man's will.

Faith is the will to believe.

Make All Four of these thrilling oven treats with One Basic Dough!

1. Chelsea Twirls



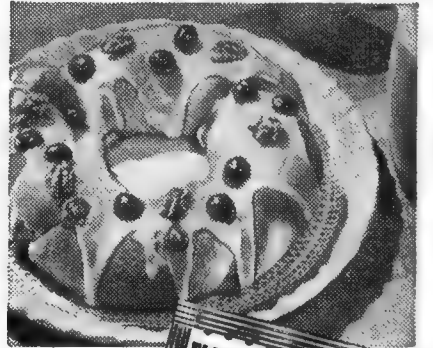
2. Orange Whirls



3. Date Eight's



4. Jam Ring



Versatility begins at home—with Active Dry Yeast!

One quick dough, thinly rolled, comes out four delectable dessert delights! Raised oh-h so tender n' light with amazing Fleischmann's Active Dry Yeast! When you bake at home, get festive results with Fleischmann's. Never fails. Keep a month's supply on hand.

Needs no refrigeration!



BASIC PINWHEEL DOUGH

Scald

- $1\frac{1}{2}$ cups milk
- $\frac{3}{4}$ cup granulated sugar
- $2\frac{1}{4}$ teaspoons salt
- $\frac{1}{4}$ cup shortening

Remove from heat and cool to lukewarm.

In the meantime, measure into a large bowl

- $\frac{3}{4}$ cup lukewarm water
 - 1 tablespoon granulated sugar
- and stir until sugar is dissolved. Sprinkle with contents of

- 3 envelopes Fleischmann's Active Dry Yeast

Let stand 10 minutes, THEN stir well.

Stir in lukewarm milk mixture and

- 3 well-beaten eggs

Stir in

- $4\frac{1}{2}$ cups once-sifted bread flour
- and beat until smooth and elastic; work in
- $4\frac{1}{2}$ cups more (about) once-sifted bread flour

Turn out on lightly-floured board and knead dough lightly until smooth and elastic. Place in a greased bowl and grease top of dough. Cover and set dough in warm place, free from draught, and let rise until doubled in bulk. Turn out dough on lightly-floured board and knead lightly until smooth. Divide into 4 equal portions and finish as follows:

1. INDIVIDUAL CHELSEA TWIRLS

Cream $\frac{1}{4}$ cup butter or margarine and $\frac{1}{2}$ cup brown sugar; divide into 12 greased muffin pans; add pecans. Cream 2 tblsps. butter or margarine, 2 tps. cinnamon and $\frac{1}{2}$ cup brown sugar. Roll out one portion of dough 12 by 10 inches. Sprinkle with cinnamon mixture and $\frac{1}{2}$ cup raisins; beginning at long side, roll up loosely; cut into 12 slices. Place in pans. Grease tops. Cover and let rise until doubled. Bake at 350° , 15 to 18 mins.

2. ORANGE WHIRLS

Boil together for 3 mins., stirring, $\frac{1}{2}$ cup butter or margarine, 1 tsp. grated orange rind, $\frac{1}{2}$ cup orange juice and $\frac{1}{2}$ cup gran. sugar; cool. Spread half in greased 8-inch square pan. Roll out one portion of dough 16 by 10 inches; spread with rest of orange mixture; beginning at long side, roll up loosely; cut into 16 slices. Arrange in pan. Grease tops. Cover and let rise until doubled. Bake at 350° , about 30 mins.

3. DATE EIGHTS

Combine $\frac{1}{2}$ lb. cut-up dates, 1 cup water, $\frac{1}{2}$ cup gran. sugar and 1 tsp. butter or margarine; boil gently, stirring often, until thick; cool. Roll out one portion of dough into 12-inch square; spread half with half of filling and roll up to centre. Turn dough over; spread remainder with filling and roll up to centre. Cut into 12 slices. Place, well apart, on greased pan. Grease tops. Cover and let rise until doubled. Bake at 350° , 14 to 16 mins. Spread hot buns with icing.

4. JAM RING

Roll out one portion of dough 16 by 8 inches. Spread with $\frac{1}{2}$ cup thick jam and $\frac{1}{2}$ cup chopped nuts; beginning at long side, roll up loosely. Twist dough from end to end; form into ring on greased pan. Grease top. Cover and let rise until doubled. Bake at 350° , 25 to 30 mins. Spread hot ring with white icing; decorate top.

Send us your RAW WOOL, WASHED WOOL, SOFT KNIT WOOLLENS, WOVEN WOOLLENS, HARD-KNIT WOOLLENS and COTTONS in exchange for Beautiful Big WOOLLEN BLANKETS at surprisingly small cost.

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"Where Bigger and Better Blankets are Made"

Dandy Candy!
SEA FOAM



3 cups granulated sugar; ¾ cup water;
½ cup ROGERS' GOLDEN SYRUP;
2 egg whites, beaten stiff; flavoring.

Boil sugar, water and ROGERS' GOLDEN SYRUP until little of mixture forms "soft ball" when tested in cold water (234-240°F). Cool slightly and pour gradually over stiffly beaten egg whites, beating until mixture is smooth, heavy and of dull appearance. Add flavoring and drop by teaspoonfuls onto greased paper to harden.

For Free Recipe Book, Write—
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Do You Feel Miserable from



- Headaches • Upset Stomach
 - Indigestion • Loss of Sleep
 - Nervousness • Lack of Appetite
 - Flatulence (Gas)
- caused by
Sluggish Elimination?

Take Forni's ALPENKRAUTER tonight and see if you don't feel much better tomorrow.

That's because ALPENKRAUTER provides 3 way help—(1) Laxative, (2) Carminative, (3) Stomachic Tonic. It is prepared according to a secret formula from 18 (not just one or two) of nature's herbs, roots, and botanicals. It is made by a company with 84 years experience in producing reliable home remedies.

So, why go on suffering needlessly another day from constipation's miseries? Do as so many others do, take time-proven Forni's ALPENKRAUTER.

Get a bottle today. If ALPENKRAUTER is not available in your neighborhood, send for the Special Trial Offer. We believe you will be glad you did.

Mail this "SPECIAL OFFER" Coupon—NOW

Name.....
Address.....
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Let's Ask Aunt Sal...

I CAN'T recall any one month since I started writing this column, when so many questions came in that I catalogue in the "general interest" category. Really I congratulate you readers on the variety of your queries.

Q.: Can pinking shears be sharpened, and, if so, where?—(Mrs. J. S., Grimshaw, Alta.)

A.: Yes. You send them to this address: W. L. Chipchase, Reg'd, 1667 St. Catherine's St. West, Montreal, Quebec. Unless they need some extra repair work done on them the sharpening charge is about \$1.50.

Q.: How can you remove enamel or monamel stains from linen or cotton?—(Mrs. M. M. G., Penticton, B.C.)

A.: These stains will come off of either cotton or linen if you saturate them with equal portions of turpentine and ammonia. Then launder in warm suds. If cloth is white, follow this treatment with a bleaching.

Q.: Some time ago we put plastic finish on light grey linoleum and now it is turning yellow. How can one remove this plastic finish?—(Mrs. M. B., Lethbridge, Alta.)

A.: I consulted both linoleum and paint dealers about this and they told me there is no special remover manufactured for this. They stated you could try paint remover, but you had to work fast and use very little at a time. A light sanding was suggested. They also agreed that this new type of finish had proved so unpopular with many people that they had quit stocking it.

Q.: In last June's issue you gave us a recipe for home-made furniture polish and it contained linseed oil. Is this oil raw or boiled? And could one use malt vinegar?—(Mrs. A. G., Nut Mountain).

A.: One uses boiled linseed oil for all such things (paints included) for the raw oil dries so very slowly. Yes, one could use malt vinegar.

Q.: Have you a recipe for preparing lutefish?—(Mrs. T. H., Saanichton, B.C.)

A.: My Norwegian mother-in-law could surely answer this, but all I know is that it was put in lye water for (I think) about one month and the water changed often. Note: Are there any obliging Scandinavian ladies among our readers who would like to give real instructions?

Q.: We bought some expensive Latex foam pillows about two years ago and now they have developed a "rubbery odor" that is very unpleasant. Could one wash these without harming them?—(Mrs. H. G., Lethbridge, Alta.)

A.: I referred this to a home service dept. and they said, yes, they can be washed by hand in mild suds... but use a fine soap flakes, not detergents.

Q.: I have several coins, mostly of the Victorian age, and I wonder if these are of any great value now. (Repeat).—Mrs. E. S., Stanger, Alta.

A.: I won't repeat the exact coins that Mrs. S. named, but this question aroused a good deal of interest, and I forwarded several letters to Mrs. S. from readers. One reader sent in this address for a coin catalogue: I'll place it here for others who may be interested: Coin Exchange, Box 35, Terminal A, Toronto, Ontario.

Q.: How can I make bologna? (Repeat.) That is just one of the several questions that have come in relating to preparing and curing meats, etc., so I think it would be a good idea if all interested in such questions would send for two booklets mentioned below.

A.: (Mrs. R. F., Ankerton, Alta., sent in this address: thank you!) Write for the booklet, "Meat For the Family", it includes selecting, slaughtering, cutting, freezing, curing and making sausages. Cornell Extension Bulletin No. 732, New York State College at Cornell University, Ithaca, New York. (Cost of booklet 25 cents.)

Another booklet you can get free is: "Beef Dishes, New and Different". Office of Council of Canadian Beef Producers, 28 Michael Bldg., Calgary, Alta.

The Dishpan Philosopher

THIS "gracious living" as it's seen in ads in any magazine, it really would appear depends on following all fashion's trends. Like having broadloom wall to wall—linoleum won't do at all!—in spacious rooms where all about there's top-notch furniture laid out. A picture window is a must and these I really do distrust. (I think too much view they provide of all the goings-on inside.) Vistas of chromium and tile inquiring eyes like mine beguile, but gracious living, I would say, is not assured by this display.

Where I've seen gracious living done of all this grandeur there was none. By humble paths my way has wound and gracious living I have found wherever people are inclined to habits neighborly and kind.

Country Diary

NOW at last it is indisputably Spring, for the singing birds are here again, rejoicing in their happy adventures of mating and home-building. Bird calls to bird across the thick grove of poplars. The most beautiful song of all is the mating-call of the blackbird. Through the gathering dusk it pours forth in exquisite melody, consisting of earth's sweetest, finest sounds. Our blackbird is close kin to the English "wise thrush", which Robert Browning says, "sings each song twice over". This high music of the sphere is the supreme exultation at winter's passing, about which poets have been writing for the past twenty centuries or earliest, and how wonderfully does he express it! "Spring, the sweet Spring, is the year's pleasant King", sang an Elizabethan poet, and then went on to translate bird-language into human words, such as: "Cuckoo, jug-jug, pu-wee, tittita-wu, witchy, witchy, witchy." Listen, one of the April days, as the birds sing them. Chaucer, too, has some apt remarks in pure old English — "In Springe ye smaller fowles maken sum melodye".

The great event of April is the return of the grass, to change the face of the prairie. Nature is spreading her green mantle again, a token that none shall starve or go hungry, for grass is the foundation of food essentials. It is also refreshment for the spirit and stimulation for eyes dulled by the monotonous tones of winter.

Q.: I want a recipe for "Salt Rising Bread." I haven't tasted this since I was a child in Kentucky. I only want to hear from someone who has actually made it or seen it made. — (Mrs. R. M., Ft. Macleod, Alta.)

A.: Is there anyone who actually can answer this from personal experience. If so, please write me.

Q.: Could you tell me where I could get good popping corn by the sack or 50-lb. lots? I once got this from a man near Lethbridge. I don't want it for seed. — (Mrs. A. S., Stony Plain, Alta.)

A.: If anyone can furnish information about this, please write me.

Q.: Could you supply the recipe for biscuits using baking ammonia and lemon oil? — (Mrs. L. T., Victoria, B.C.)

Ammonia Biscuits — (I gave this recipe to a reader a while back and she replied that they were terrible! So make them at your own risk.)

Dissolve 1 tsp. baking ammonia in 1 tblsp. milk. Beat until creamy, the following: 1 cup sugar and ½ cup butter and 1 egg (mixed in the ammoniated milk). Stir in 2 cups all-purpose

To April belongs another miracle. The earliest of prairie flowers, "the little children's flower" — [as Wordsworth called the buttercup], the lovely mauve and silver crocus, appears in profusion, to decorate the wild places with indescribable beauty, and to charm the senses and delight the eye of the beholder. Where it and other wild flowers grow, they should be strictly conserved and saved from wanton destruction such as indiscriminate mass plucking, deliberate uprooting and trampling. Teachers and parents should be urged to impress on children the importance of kind treatment of our precious wild flowers, Nature's gift to our province, though sometimes the grown-ups are also offenders themselves. The unstudied charm of a gift bouquet of wild flowers has given obvious pleasure to a princess or queen whose words of gratitude and happiest smiles have been for the children who presented them. Officialdom has often been worried about the choice of costly gifts for visitors on royal tours, who had no need for them. Flowers were created to give joy and delight to a beautiful moment, and their very transience makes them precious.

In olden times, April was pronounced Apryle, and is still so pronounced in some out-of-the-way, old-world parts. I like its spring-like sound, and from now on I think I, too, shall call it Apryle, at the risk of being considered eccentric.

flour. Add 1 tsp. extract of lemon. Roll out and cut in biscuit shapes. Bake in floured pan in oven 375 to 400 F. Watch carefully for they burn easily.

Q.: Please send me the recipe for Coconut Squares. This was printed about five years ago in your column. — (Mrs. T. D., Edgewood, B.C.)

A.: I sent Mrs. D. one recipe and since then I have found this one and thought she (and you-all) might like it, too. It is called:

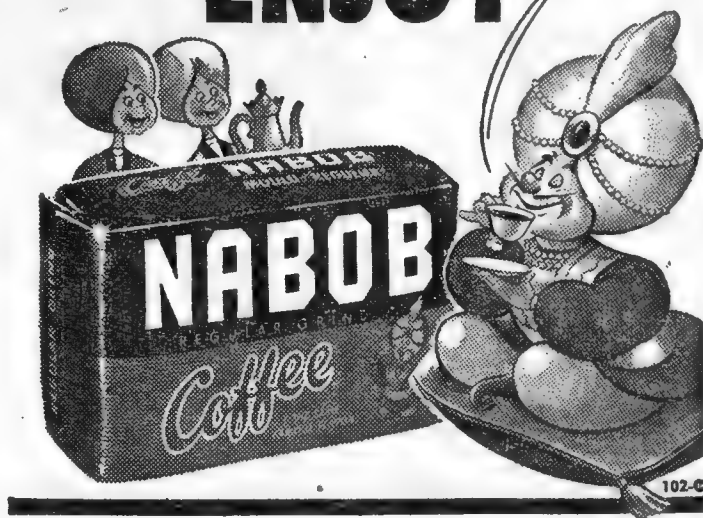
Cocoanut Delight Cake

Bottom crust is: ¾ cup butter, ¼ cup white sugar, 1½ cups flour. Mix together and press into bottom of square pan (9 x 9). Bake 10 minutes and after cool spread with jam (I chose strawberry).

Topping: 1 egg white, beaten stiff. ½ cup brown sugar, ¼ tsp. salt, ½ tsp. vanilla, ½ cup cocoanut. Pour this over crust and jam. Bake 35 minutes in oven 325° F.

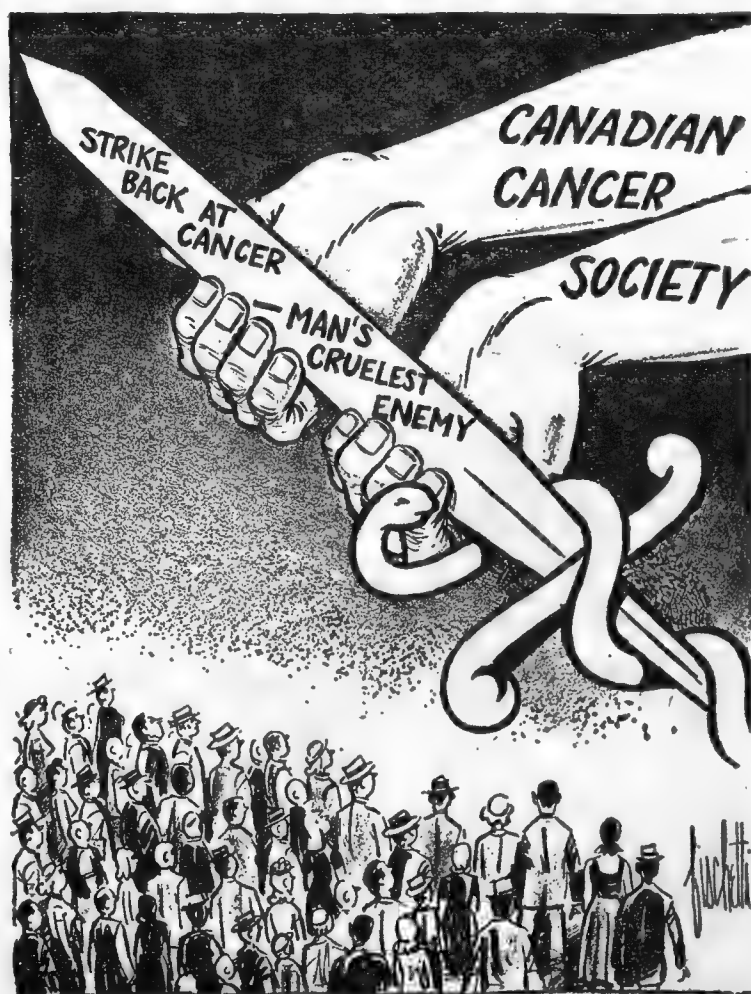
Send your questions to Aunt Sal, in care of Farm and Ranch Review, Calgary, Alberta. If you wish a private reply, enclose a stamped, self-addressed envelope. Kindly limit one question to each letter.

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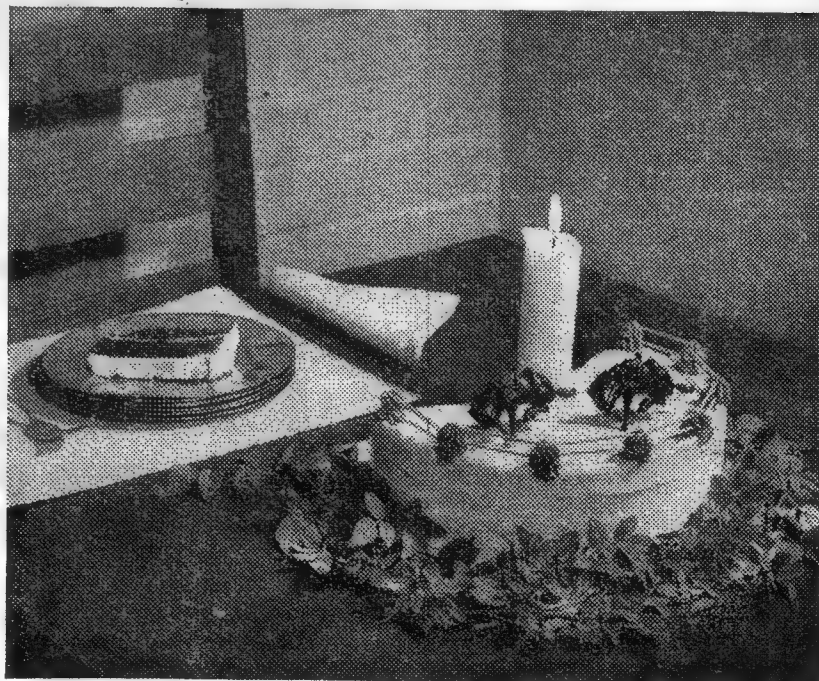
Address _____

(Please Print)

No fancy, pink beflowered cake for Brother! Make his cake a chocolate fudge one, ice it with maple frosting the color of corral dirt, then make a corral fence with toothpicks and icing-posts. Poke a fat candle down in the center (or make cake in angel-food tin) and arrange bucking broncs from the dime store anywhere in the corral. A bit of green around the base of the cake plate won't offend a masculine Roy Rogers' fan, and if his guests are given broncs to take home so much the better! Broncs like those on cake may be stuck to white cards bearing the children's names and thus serve as suitable place cards and favors.

For Johnny's Birthday!

By LOUISE PRICE BELL



Once you please the cowboy enthusiasts in this way, Johnny's please will be for a corral cake every time... and it is so easy to create!

Lengthen the life of old battery packs

By MRS. VIOLET M. HIGGINS,
Maidstone, Sask.

WHEN battery packs seem to be worn out, causing radio reception to become increasingly poor and finally to fade away altogether, the trouble may be that the plug-ins on the battery pack have become loose or disconnected altogether.

This may be remedied by removing the loose plug-in, and tearing off enough of the protective cardboard covering to permit the two wires from inside the pack leading to the plug-in to be fastened to the battery wires from the radio. (Be sure to allow enough wire for a good firm connection.) Try it before discarding that old battery pack; it may result in many extra weeks of service.

Another method which results in longer service is to attach an ordinary telephone battery to the A (usually the center plug-in). As the A battery in a pack always gives out before the other two, the radio will often give satisfactory service for weeks; in any case it's a handy trick to know when your home team's in the thick of an exciting hockey game and the radio suddenly begins to fade, or you're waiting to see if you've won the jackpot on a quiz program.

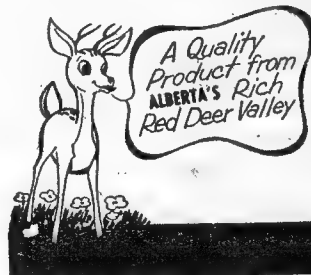
Ways to use apples are endless. Make slits in the fat of a roast of pork; then, before roasting, insert pieces of tart apple. You'll be proud of the flavorful gravy it makes. Another idea is to add raw grated apple to a hash mixture as it fries.

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53

Pamper the dry cow it pays dividends

(Condensed from The Dakota Farmer)

THE dry cow is probably the most important animal on a dairy farm. She may be more important than a "fresh" cow, since the treatment she gets during the dry period, to a great extent, determines what kind of a producer she will be after calving.

A dry cow is much like a savings account in the bank. After she has freshened her owner can draw out only what he has deposited during the dry period. This is because proper care during this time increases body fat, replaces tissues worn out by the last lactation, restores surpluses of minerals, and builds up reserves of vitamins.

If she isn't properly cared for, the dry cow will have to draw on her remaining body reserves instead of building up new ones during her resting period. When this happens, any of the following four things can result:

1. Calves may be born weak, dead, or afflicted with "three-day scours" because of vitamin A deficiency.
2. Milk production may be decreased because of a lack of calcium or phosphorus that is needed to make it.
3. Bones may be easily damaged or broken because excess amounts of calcium and phosphorus have been drawn from them.
4. Breeding troubles may result because of the generally run-down condition of recently fresh cows.

The length of the dry period is important. This isn't an exact matter of so many days, since it depends on the condition of the cow. Four to six weeks is generally about right, but this may not be enough for high producers that have milked very heavily in previous months. Animals like this may need dry periods of 10 weeks or more to get themselves back in good condition.

Since you won't get top production from cows that freshen while they're thin, you'd better make sure that they get a little fat on their backs while they're dry.

Some owners dry off their cows in the wrong way. It doesn't make much difference how it's done as long as drying-off doesn't call for taking most of the food and water away. This procedure not only prevents fattening of cows, but it also makes it necessary for them to draw on precious reserves so they become even thinner. In some cases it may be desirable to take away a cow's grain for a few days, but she ought to have plenty of roughage and all the water she wants, while being dried off, anyway. Grain feeding should be started again as soon as

possible unless cows are on excellent pasture.

A practical winter ration is composed of well-colored legume hay, silage, and grain. The hay will provide essential minerals like calcium and phosphorus, together with vitamins A and D. The silage will provide additional nutrients and act as an appetizer at the same time. The type of roughage that's available will determine what the best grain mixture should be. When good legume hay is being fed as the only roughage, a half-and-half mixture of ground oats and corn or barley will probably be all right. When the legume hay is being fed with silage or corn fodder, some kind of a 12% protein grain ration is recommended. Poor quality roughage like prairie hay or straw calls for a 16% ration, with a suitable one being composed of equal parts

bran, linseed meal, ground oats, and barley or corn.

The amount of grain needed also will depend on the condition of the cows. Those that were in good condition when dried off will be all right on two to four pounds of grain daily, while those that were extremely thin will probably need 10 or more pounds daily. In addition to the grain feeding, dry cows should have all the roughage they will eat without wasting it.

The proper feeding of dry cows doesn't end with providing grain and roughage, either, for all of them will need salt and most of them will require some extra minerals. The amount usually mixed with the grain ration won't be enough for many animals, so you'd better put out the salt and minerals in weather-proof boxes on a "help-yourself" basis. It's best to supply these separately so cows can choose whichever they like.



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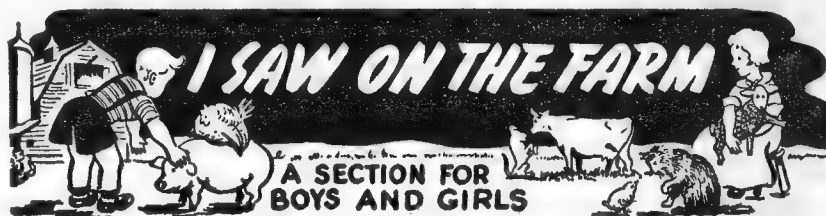
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Dog-Teeters



This picture of dogs having fun was sent in by R. D. Meeks, Mannville, Alta.



One sunny day my sister and I made a snowman, which was made very carefully. We used old clothes to dress him up. We used an old fur cap for his head, which was a lot to large

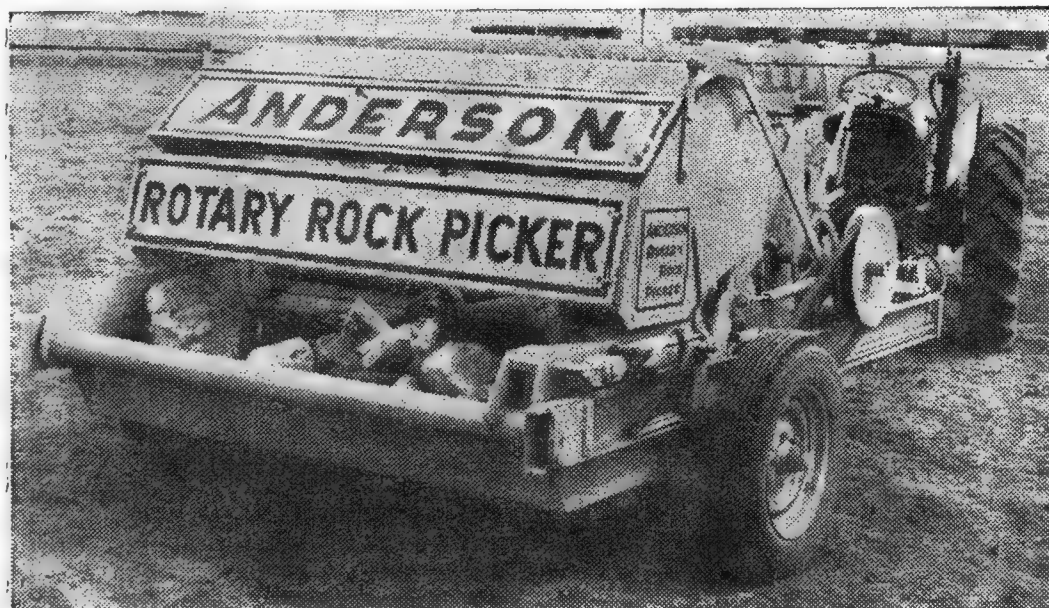
for him. Next day we went out to do the finishing touches when we saw our old cat asleep in the fur cap. We didn't disturb her and she slept there all day.

Victoria Kyca.

Box 150, Andrew, Alta.

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One morning last fall, when Daddy went out to the barn, he heard a commotion in the henhouse. We went over and opened the door. There, in front of him, was a large skunk eating a hen. Daddy didn't want to shoot him in there because it would smell the henhouse up, so he got a pole and tried to chase him out. When this didn't work, he got a piece of string, tied it to the pole, and made a loop on the other end. Then he reached in and put the loop over its head, and pulled it up the road about 100 yards, being careful not to get it turned around, and then shot it.

Rasemary Crawley.

R.R. 3, Box 26,

Minnedosa, Man.

One day one of my brothers was out seeding with the tractor and he found a baby deer which he put under a wagon. At night when he went home he brought it and we tamed it. Soon we had taught it to stay around by the house and to drink milk. It used to follow my brother and sister to school and always it came home in time for its milk. But one day it followed some neighbor's children home and we never saw it again.

Erwin Uhl.

Box C, Strasbourg, Sask.

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Coffee out of carrots and chicory

By LEONARD H. COOPER

THE high price of coffee seems to be affecting many people. During the last war, prices were not high but rationing, for us at least, did not give us all the coffee we needed, so we had to put our brains to work to stretch our coffee ration. The result was we increased our coffee by making "carrot coffee".

The carrots are washed and grated finely on trays that will fit the oven. Drying is done at a low temperature about 250 degrees. During the drying process the shreds are stirred so that the drying proceeds evenly. As drying continues the carrot assumes the color of a well-known breakfast food. When dry the temperature is raised a little until the dried carrot is the color of coffee. At this stage be careful not to burn the carrot. If you do a bitter taste is developed. Allow to cool, roll a rolling pin over the shreds and store in a can.

Equal parts of coffee and roasted carrot make a very acceptable beverage.

Last year we grew chicory. This vegetable is not so commonly grown as it should be. The leaves are suitable for salads and the roots when roasted are a good coffee substitute. As far back as 1847 chicory was mixed with coffee in Britain, but in 1851 a law was passed, "That the sale of a mixture of coffee and chicory be not interfered with, provided each package had legibly printed thereon words plainly indicating such mixture".

As a young chemist in England I made many analyses of coffee, searching of course for the presence of chicory.

The following sugar content of coffee and chicory is interesting — roasted coffee rarely reaches 2 per cent whilst chicory roasted, usually has at least 8 to 9 per cent of sugar.

I do not know what made us grow chicory last year, chiefly from the salad angle I think it

was. But now we are pleased we did.

Chicory is as easily grown as carrots. The plants should be thinned to stand 6 inches apart in the rows. In good soil the roots grow to a good size. If you grow chicory this year, I would advise your drying them as soon as possible, after lifting, because the roots do not keep as well as carrots.

Grate the chicory and dry as suggested for carrots.

For use take two parts of coffee and one of roasted chicory.

Next autumn a very enjoyable drink would be one measure each of coffee, roasted carrot and roasted chicory. Good farm cream and sugar added to suit personal tastes.

Because of two record harvests, Danish agricultural production has reached its highest level in 20 years. The Danes are finding, however, that more customers are protecting home production by import restrictions and the future market outlook is less promising.



KING WHYTE
POPULAR OUTDOOR EDITOR
OF THE TORONTO DAILY
STAR SAYS...

Too few gunners take advantage of the wonderful sport awaiting them in the thrilling game of out-smarting the crow.

One reason is the belief that the crow is just too smart a bird to get within range of a scattergun. When he sees a man with a gun he starts cawing the "danger" signal and alerts all his pals. But, he can be fooled and provide fine shooting coupled with the satisfaction of helping keep a pest bird under control.

The crow cannot be considered as a total blackleg and thief. He is a menace in the farmer's fields, he does destroy chickens and rob the nests of smaller birds; but he also eats toads, frogs and a vast number of insects. However, it is estimated that less than one-third of his diet is beneficial—and that's why his numbers must be kept within bounds.

The first thing to consider in crow shooting is the use of an artificial or natural blind. The next is the use of a decoy and a crow call. An artificial blind, which is easy to carry, can be made from a length of chicken wire with high grass, spruce boughs or other such natural cover tied to it.

For a natural blind, low bushes near trees is best but you can also utilize a ditch, a hedgerow or any other natural growth that will give you adequate cover.

The ideal crow decoy is a stuffed owl but don't be discouraged if your Aunt Minnie doesn't have one stored away in the attic. Most sporting goods stores sell quite adequate decoys made of paper mache or plastic. Set your decoy up near your blind and then get busy with your crow call.

Crows will wing their way to the rescue of another crow in distress and it is this that brings them within gunshot range. They see the hated owl, they hear the growling CAW of one of their members in pain and anger, and before you know it they are likely to be right in on top of you.

You can use any gauge of shotgun for crow shooting but as in other kinds of gunning, the shot size is important.

My preference is the Canuck with No. 6 or 7 1/2 shot. This same load is equally effective for western gunners who shoot magpies.

Take a tip from King Whyte, and get some worthwhile off-season shooting. Crows, magpies, gophers, foxes and skunks are fair game. A FREE booklet "Calling ALL Crows" is yours for the asking. Just write Department "M", C-I-L Ammunition Division, P.O. Box 10, Montreal.



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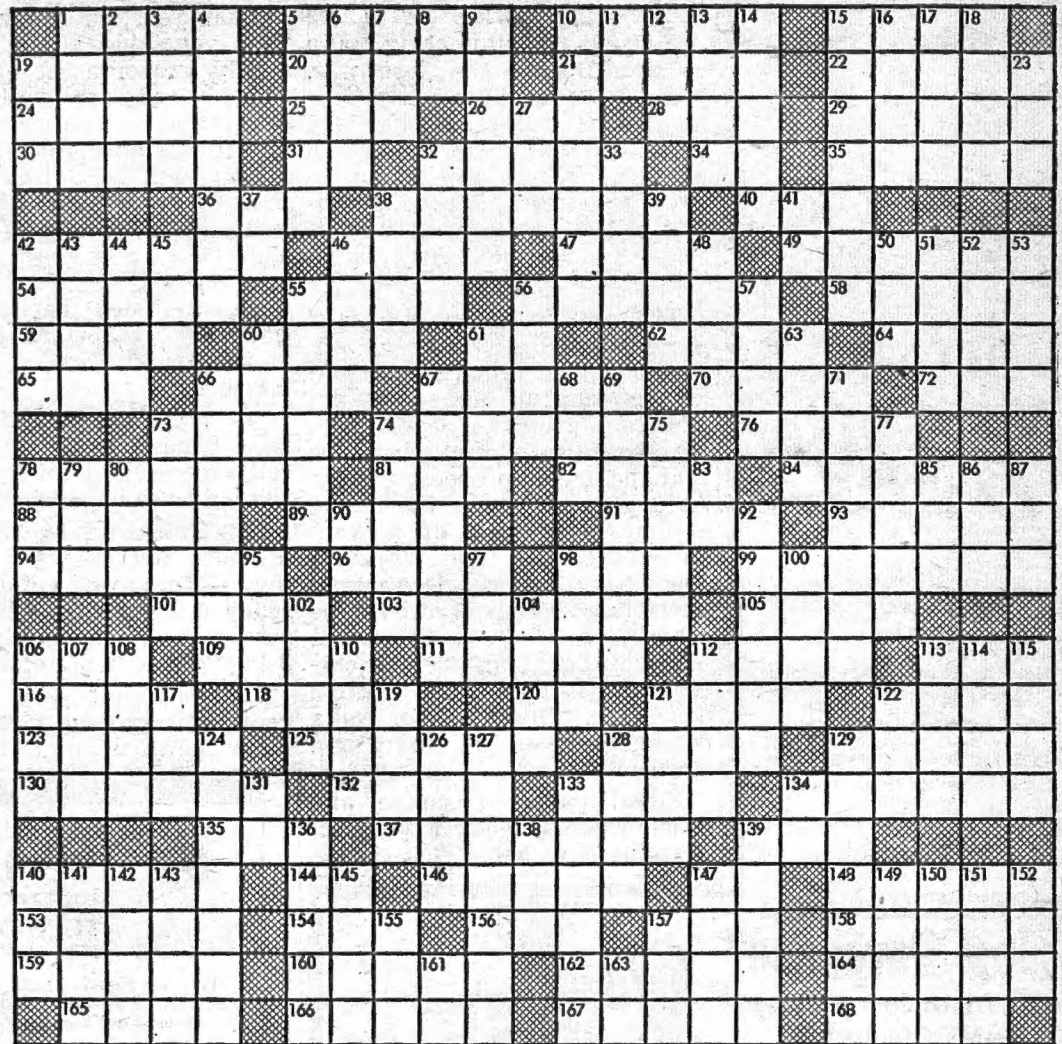
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Our Crossword Puzzle



HORIZONTAL

- | | | |
|--------------------------------------|--------------------------------------|---|
| 1 Perceive by ear | 60 An Arabian tambourine | 109 Warbled |
| 5 Animal (pl.) | 61 Symbol for silver | 111 One who colors fabrics (pl.) |
| 10 Middle-distance runner | 62 Fastens | 112 Sublimant sound of contempt |
| 15 To stuff | 64 Appellation of Athena | 113 Rotating piece |
| 19 Grasslike marsh plant | 65 Ethiopian title | 116 Stripped instrument |
| 20 Moro of Mindanao | 66 Foresaken | 118 Debatable |
| 21 Roman urban official | 67 Unofficial vote | 120 Article |
| 22 Product of bees | 70 Burden | 121 Moistens |
| 24 Presses | 72 Unit of energy | 122 Biblical weed |
| 25 Form of "to be" | 73 Simple | 123 To correct |
| 26 Mineral spring | 74 Impaled on | 125 Unexpressive |
| 28 Sick | 76 Go at certain gait | 128 Noises |
| 29 Make explanation for | 78 French city, famous for porcelain | 129 Country of Asia |
| 30 Abdicate | 81 Footlike part | 130 To become visible |
| 31 Brother of Odin | 82 Sharp to taste | 132 Transaction |
| 32 Upright piece of lumber (pl.) | 84 Lifts spirits of | 133 Weapons |
| 34 Sioth | 88 Shows reverent admiration for | 134 Clearest |
| 35 Hangs from | 89 Male forebear | 135 To blight |
| 36 Native metal | 91 Musical instrument | 137 Daubed |
| 38 Sea bream | 93 Followers of a strict Mennonite | 139 Through |
| 40 Feline | 94 A pawl | 140 Mimicking |
| 42 Safe | 96 Passing fancies | 144 Bone |
| 46 Title of nobility | 98 Stinging insects | 146 Bird |
| 47 Legal paper | 99 Aroma from burned spices | 147 State (abbr.) |
| 49 Material (pl.) | 101 Summer drinks | 148 Minstrels |
| 54 Large box used for making pottery | 103 Proffers | 153 Jury list |
| 56 To state | 105 Recompense | 154 Blow on the head |
| 58 Insurgent | 106 Harvest goddess | 156 Core over which metal objects are fashioned |
| 59 Military assistant | | 157 Large |
| | | 158 Tunes |
| | | 159 Rugged crest of mountain range |
| | | 160 To exhaust gradually |
| | | 162 Division of clan |
| | | 164 Trap |
| | | 165 Elevated, as golf ball |
| | | 166 Begin |
| | | 167 Borders |
| | | 168 Stockings |

VERTICAL

- | | | |
|--|---|---------------------------------------|
| 1 At this place | 48 Group of three | 107 Draw information from |
| 2 Esau's other name | 50 Beverage | 108 To walk |
| 3 Vedic fire god | 51 Capable | 110 Favorable |
| 4 To give back | 52 Look at malignantly | 112 Chickens |
| 5 Serf | 53 Cross | 113 To tend |
| 6 Rabbit | 55 To fondle | 114 War god |
| 7 A compass point | 56 Carpet made in India | 115 Flesh |
| 8 Babylonian deity | 57 Canvas shelter | 117 Compass point |
| 9 Pertaining to the mail | 60 Ripped | 119 Pedal |
| 10 Grasslands | 61 The sweet-sop | 121 Breeze |
| 11 Fundamental mass of life tendencies | 63 Certain inscription on a medal (pl.) | 122 Rocky pinnacle |
| 12 52 (Rom. num.) | 67 Vent fast | 124 Hung loosely |
| 13 Feminine name | 68 Skill | 126 Woman |
| 14 Article of virtue book | 69 One who makes cloth on a loom (pl.) | 127 Expressing fastidious taste |
| 15 Division of | 71 Comforts | 128 Piece for two |
| 16 Repetition | 73 A peninsula in S. Greece | 129 Turkish whip |
| 17 Presently | 74 European herring | 131 Japanese measure |
| 18 To fix | 75 Rids of moisture | 133 Welcomes |
| 19 Spanish hero | 77 Domesticated | 134 Hebrew letter |
| 23 Word of affirmation | 78 Youth | 136 Body of water (pl.) |
| 27 A wether lamb (dial.) | 79 Kind of fish | 138 Equip with weapons |
| 32 Agile | 80 Bright saying | 139 Part of book (pl.) |
| 33 Title of respect (pl.) | 83 Toward | 140 Wallaba |
| 37 Syllable of scale | 85 Metal | 141 Parcel |
| 38 River of Europe | 86 A worm | 142 Arrow |
| 39 Followed eating regimen | 87 Pronoun | 143 Upper tone of disjunct tetrachord |
| 41 Form of "to be" | 90 Whether | 145 Classify |
| 42 Cicatrix | 92 Boundaries | 147 Taunt |
| 43 Silkworm | 95 Group pulling together | 149 River of Italy |
| 44 Bounders | 97 Vessel's curved planking | 150 Narrow inlets |
| 45 American Indian | 98 City in Switzerland | 151 Venture |
| 46 Ardor | 100 Headland | 152 Compass point |
| | 102 Frozen rain | 155 Cry of sheep |
| | 104 College official | 157 Offer |
| | 106 Genus of olives | 161 Symbol for iridium |
| | | 163 State (abbr.) |

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